Second Report on the Excavation in the Monastery of Apa Shenute (Dayr Anba Shinuda) at Suhag

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The following report on the archeological activities in the monastic buildings of the monastery of Apa Shenute covers the work in spring (15 to 23 April) and autumn (3 to 29 November) of 2003.[1] The complex is located at the edge of the desert near the modern town of Suhag, in Upper Egypt. During these two seasons nearly all the remains of the monastery uncovered by the Supreme Council of Antiquities (SCA) from 1985 to 2002 were surveyed, except for the far northern monk house and the chapel in the northwest region. In addition, further cleanings and some small additional investigations were carried out in some of the more significant buildings. It was decided to record all the surviving pavements in these buildings, and to undertake a preliminary examination of the pottery finds, carried out by Darlene L. Brooks Hedstrom and summarized in part II. The report concludes with a study by Hans-Christoph Noeske on a pottery mold for the production of coin imitations and on two hoards of gold coins found during the excavation in the monastery. All these reports and activities have led to a deeper understanding of the monastic structures.[2]

I. Monastic Building Remains

I.1. *Additional Observations on the Buildings Described in the First Report*

A general introduction to the monuments of the monastery of Apa Shenute as they were excavated by the SCA in the years from 1985 onward has been given already in our earlier report[3] and does not need to be repeated here. There are, however, several new buildings to be added to the general plan of the site (fig. 1). The structures of highest quality are erected of fired bricks with the use of lime mortar, occasionally mixed also with *opus signinum*. These buildings apparently do not belong to the time of Shenute (late 4th–5th c.), but were erected later, probably from the end of the fifth century onward and mainly during the sixth century. Only the great well in the northwestern region of the monastery dates to the lifetime of Shenute; it is constructed of fired bricks. All the other buildings from the time of Shenute, apart from the church, were constructed with

For our first report see P. Grossmann et al., "The Excavation in the Monastery of Apa Shenute (Dayr Anba Shinuda) at Suhag," *DOP* 58 (2004): 371–82.

1 For revision and final editing of my English text I am deeply indebted to Elisabeth R. O'Connell.

2 The agreement to carry out this work was kindly granted by the SCA during its session of 3 September 2003. Members of the crew were Peter Grossmann and Darlene L. Brooks Hedstrom. Tarik Said Abdal-Fatah joined the mission as a representative of the SCA and was supported by Mahmud Abd al-Mugdi and Abdal-Hamid. The mission is also grateful to Dumbarton Oaks for funding the work described and documented in this report. It was awarded a Dumbarton Oaks Project Grant in Byzantine Studies in 2002, for work in April and November 2003.

3 Grossmann et al., "Excavation," 371ff.

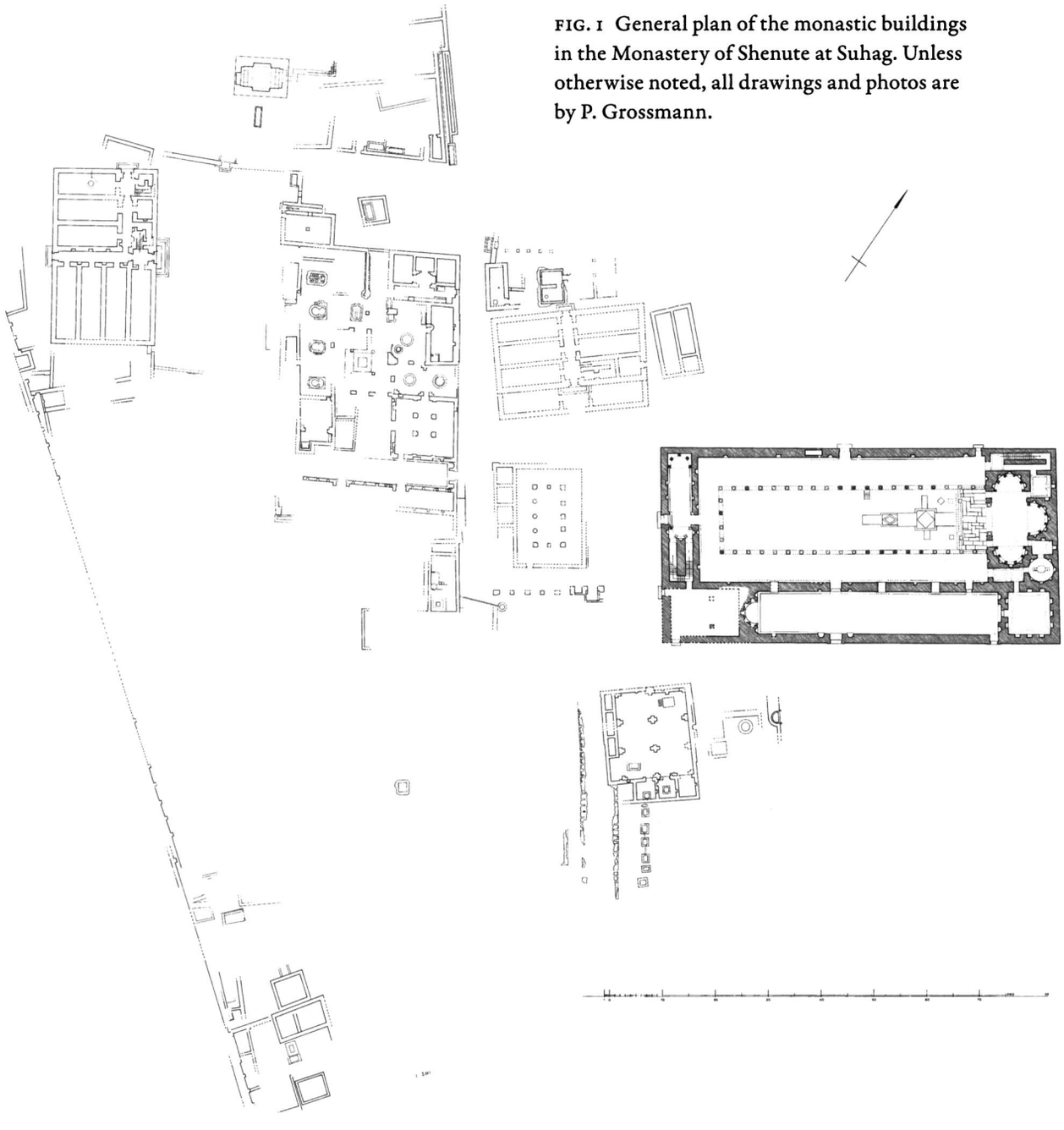

FIG. 1 General plan of the monastic buildings in the Monastery of Shenute at Suhag. Unless otherwise noted, all drawings and photos are by P. Grossmann.

ordinary sun-dried mud bricks, the traditional building material of Egypt since Pharaonic times, available everywhere in the region. The great church proper is built of ashlar masonry in the manner of classical architecture, not, as was customary in later periods, with dressed blocks used only on the exterior of the walls with an interior core of rubble or brick masonry. The materials used in this church are *spolia* from a dismantled Ptolemaic or Roman temple once situated in the area.[4] According to a Greek inscription on the back

4 The often-expressed assumption that the stone was taken from the nearby temple of Triphis at Athribis, built by Ptolemaios VIII, Euergetes II, has to be rejected. Recent excavations by the SCA

of the lintel over the main southern entrance into the church, the expenses of the building were funded by a certain *comes* Caesarius, son of Candidianus,[5] while its construction was supervised mainly by Shenute, the abbot and archimandrite of the monastery. This Caesarius, who is never mentioned in any other text relating to the monastery, may have been responsible for the rich interior decoration of the church, which might have been regarded as superfluous by Shenute.

I.1.1. THE EASTERN MONK HOUSE BESIDE THE NORTHWEST CORNER OF THE CHURCH

Only very few remains survive of the eastern monk house (fig. 2), in contrast to the western monk house of apparently later date (see below).[6] With few exceptions, all the walls have disappeared. But through the careful cleaning of the whole building some further details came to light, which contribute to the understanding of its structure. Of special interest is the fact that the building has two main building phases. The original structure consists of a roughly rectangular complex with an interior central corridor running north-south, on both sides of which were situated several sleeping halls (three to the west, two plus a stairway to the east).[7] The two entrances to the building were located at each end of the central corridor. During a second building phase two additional sleeping halls or dormitories of similar size were added on the south.

Of the two entrances only the outer catchment pits survive, giving at least a general idea about the position of the doors. The main entrance lay apparently on the south. As indicated by the surviving remains of the pavement, it opens onto a slightly broader entrance chamber; the stairway for the second floor was accessible from this chamber's right side, and the first sleeping hall was to its left. The door on the north side opens directly onto the central corridor, from which the other sleeping halls were accessible.

Near the southern, main entrance a short section of the foundation of the outer wall of the building survives. Its thickness of 1.35 m seems to prevail for all the other outer walls of the building, although other extant sections of the outer wall on the west side are not sufficient to give any indication of their original thickness. From the general arrangement of the ground plan it also appears that the room in the southeast corner had no direct connection with any other room. We assume that this room had a direct entrance from outside, probably from the east, since the smaller pavement slabs of this room are arranged in strips running east–west.

The building's construction, with all the walls of fired bricks, is very unusual. Only the outer walls have a foundation, although it is not very deep. The very bottom of the walls (at only 0.58 m below the original floor level) consists of a layer of pebbles (fig. 3) laid in sand and lined on the exterior with a course of fired bricks, while the inner side of the pebble structure is not faced. Above the pebble layer is a thin layer of crushed fired bricks and brick dust, then an oarlock-shaped course of bricks, which were often used (because of their higher resistance to pressure) as the bottom courses of brick walls. Above this substructure were placed three normal layers of bricks to reach the floor level of the building.

The slightly thinner inner walls do not have any special foundation. Instead the whole inner area of the building was covered with two layers of fired bricks, placed upon a thin layer of pebbles laid in sand. Both layers of brick correspond with the two upper courses of bricks used in the outer walls. But, while the courses in the outer walls follow strictly the direction of the walls, the layers of brick in the whole inner area of the building lie diagonally at different

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under the supervision of Yahia el-Masry discovered the remains of a monastery in this temple and proved that the temple was still intact during the 5th and 6th centuries (see Y. el-Masry, "More Recent Excavations at Athribis in Upper Egypt," *MDAIK* 57 [2001]: 205–18, esp. 211f., fig. 4).

5 Αἰωνία μνήμη τοῦ μεγαλοπρεπεστάτου κόμετος Καισαρίου, τοῦ υἱοῦ Κανδιδιανοῦ, τοῦ κτίστου with the French translation of G. Lefebvre, "à la mémoire éternelle du très illustre comte Caesarius, fils de Candidien, le fondateur"; cf. G. Lefebvre, "Inscription grecque du Deir el-Abiad," *ASAE* 20 (1920): 251; idem, in *DACL* (1920) 4:459–502, s.v. Deir el-Abiad, esp. 470–75, fig. 3648 (facsimile); U. Monneret de Villard, *Les couvents près de Sohâg (Deyr el-Abiad et Deyr el-Aḥmar)* (Milan, 1925), 1:18f. That indeed the church was not erected with the monastery's own resources follows also from the discovery of a treasure by Shenute himself, recorded in the Coptic *vita* of Shenute, chap. 32 (trans. E. Amélineau, *Monuments pour servir à l'histoire de l'Egypte chrétienne aux IV^e^ et V^e^ siècles*, Mémoires publiés par les membres de la Mission archéologique française au Caire 4, no. 1 [Paris, 1888], 353).

6 Briefly mentioned in our earlier report; cf. Grossmann et al., "Excavation," 378f. fig. A.

7 Concerning the use of these sleeping halls, see I.1.2.

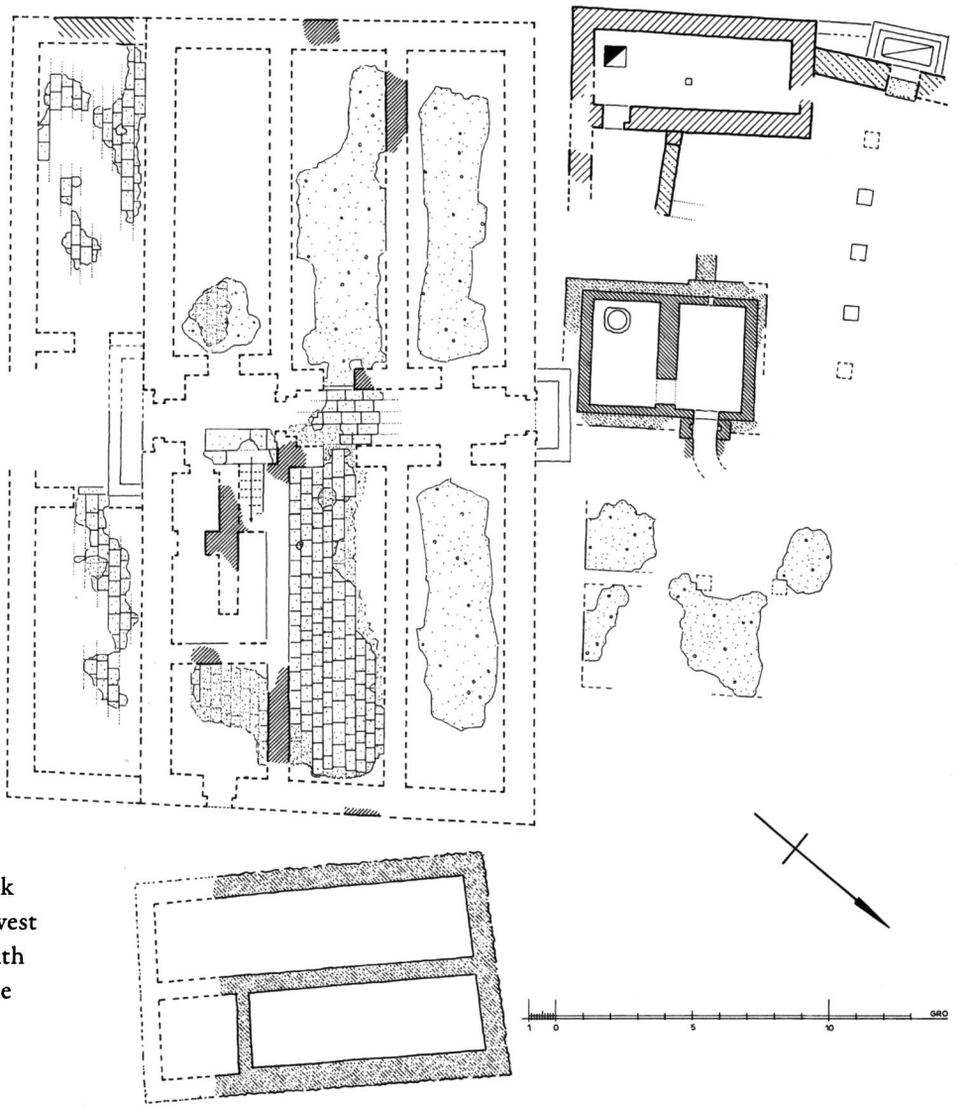

FIG. 2 The eastern monk house beside the northwest corner of the church, with adjacent buildings to the north and east

directions in both layers. They were covered with lime mortar and above this were erected the interior walls. Occasionally some traces of setting lines for the walls are observable on the surface of the lime mortar. Thus, the same ground preparation carried the floors and the interior walls.

Most of the rooms of the original building have remains of two kinds of flooring. The earlier one was a plastered floor consisting of a relatively thin layer of *opus signinum* laid upon a thick layer of lime plaster. The composition corresponds with the plastering of the walls and belongs thus to the original construction. During a second period, all the walls received a new plastering, while the floors of the rooms and the central corridor were paved with thin limestone slabs (fig. 4), except for the area below the stairway next to the south entrance, where the floor was made of a simple pavement of fired bricks covered with a thin layer of ordinary lime plaster.

The two extra dormitories added at a later date were arranged on both sides of the southern main entrance. Whether a new entrance wall was created to include both rooms in the interior program of the building cannot be determined, but is rather probable. On the other hand, the construction of the two later rooms is quite different from that of the original

FIG. 3 Foundation of the eastern monk house.

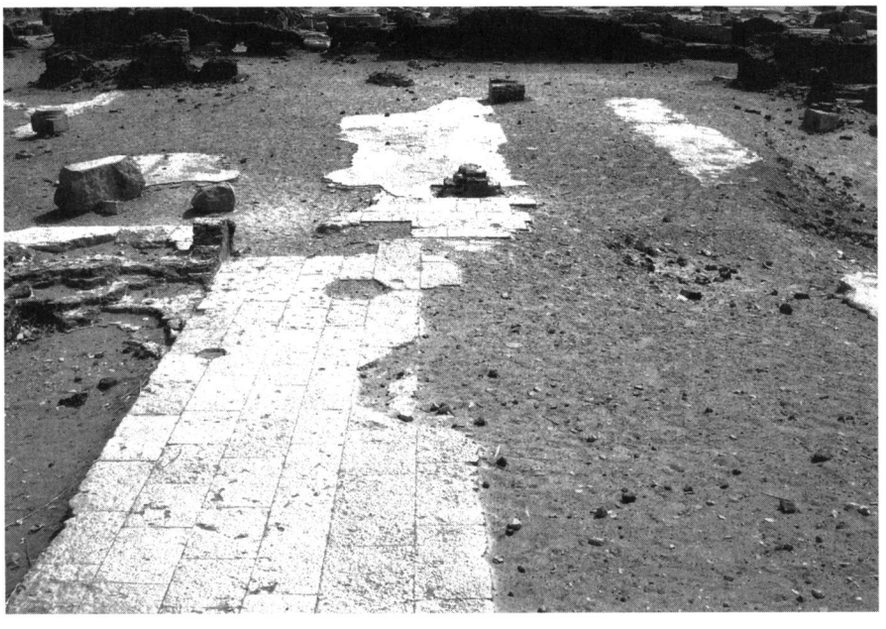

FIG. 4 General view (to the east) of the eastern monk house

building. Their outer walls are thinner and were built up of fired bricks laid in simple mud mortar, as can be seen in a surviving section of the outer western wall. Also the preparation of the floors is different from those belonging to the original building. Both rooms were paved with thin limestone slabs without any underlying plastered floor. The floor levels of both rooms are situated slightly higher than the floor in the earlier part of the building.

To the east of this monk house, on slightly lower ground, are extant remains of a smaller building of apparently similar kind (fig. 2). The building has only two rooms, both oblong, and a smaller, probably square, entrance chamber in the southeast corner. As none of the surviving walls has any outer facing, these remains represent only the foundations of the building, while the upper parts are lost. All traces of the floors have been lost as well.

I.1.2. THE LARGE WESTERN MONK HOUSE

The large monk house situated at the western side of the central square is one of the best-preserved buildings excavated in the area of the monastery during the past years by the SCA (fig. 5).[8] It is composed of two sections, north and south, each with its own entrance doorway, a small entrance chamber, and its own corridor for access to the monks' sleeping halls. The doorway into the southern section lies on the east and serves as the main entrance (fig. 6), while the doorway into the northern section is on the north. A third doorway on the western, rear side of the building, at the west end of the southern corridor, apparently served only secondary purposes. It is the only door equipped to be securely closed from inside, by means of a long bolt.[9] Since the doorposts of this door are not fully bonded to the attached walls, it seems that some changes were made in this part of the building during its construction.

The floor level of the building is higher than the surrounding area, so that all doors had a run of steps in front. The steps on the north side and at the western rear side do not survive. On the western rear side one has the impression that the mud brick buildings attached to the western girdle wall of the monastery are of earlier date than the western monk house.

Both main entrances are nicely designed with types of inverted *propylaia*, shaped like small rectangular alcove-like recesses flanked with pilasters on both sides.[10] The slightly projecting doorposts were designed as pilasters with profiled bases imitating Attic bases and topped probably with Corinthian capitals. In front of these doors, inserted into the outer flight of steps, are the same kind of rectangular catchment pits as were observed in the earlier eastern monk house, described above. The one at the eastern main entrance is 1.15 m deep and on both ends extends beyond the width of the entrance niche. The width of the catchment pit is 1.05 m. The catchment pits in front of the other doors are slightly smaller and shallower. Because we find these pits in front of all three doors of the building, and they are extant also at other buildings (infra, I.2.3), we are of the opinion that these catchment pits, known only from this monastery, serve to prevent vermin such as scorpions, mice, or snakes from entering into the house.

All the doors were double-leaved. The threshold of the northern door is a large, partly broken Pharaonic stela of black granite, whose inscription has been erased, apparently for fear of demonic attacks. The threshold of the eastern door is, as normal, built of dressed sandstone blocks. Both main doors lead into roughly square entrance chambers, from which other doors open into the inner corridors. The entrance chamber offers also in both cases access to the first sleeping hall on one side and the stairways leading up to the upper floors on the other side (fig. 7). But, while the *sottoscala* of the northern stairway is also accessible from the respective northern entrance chamber, the *sottoscala* of the southern stairway is accessible only from the northern corridor. Each of the corridors offers direct access to the sleeping halls, lined up on one side. In addition, on both sides the corridors are furnished with a sequence of large rectangular wall niches. Some of them were later fitted with wooden frames to make them closable. Both corridors are connected in the interior by a door on the southeast end of the northern corridor. This door may have usually been kept closed, as is suggested by the well-preserved floor pavement in this area. On the east side, close to the southern end of the northern corridor, a flat niche, shaped like an *aedicula* with flanking columns, is inserted into the eastern wall. The size of the flanking columns, which no longer exist, is easily detected from the rectangular openings in the pavement where the bases were inserted. The purpose of this niche is not clear because, in our view, the space around it is too limited for use as a prayer niche.

The sleeping chambers for the monks were not cells for individual monks, but larger dormitories with space for about fourteen to sixteen men, whose sleeping places would have lined the walls. They probably slept on mats, as was customary in the early monastic tradition.[11] All the doors of these dormitory rooms were

8 Our former doubt concerning the function of this building as a residential building, that it could have been also a granary (cf. P. Grossmann, *Christliche Architektur in Ägypten*, *HO* sect. 1, 62 [Leiden, 2002], 293f., fig. 154), has since been resolved; see also Grossmann et al., "Excavation," 375ff. fig. C.

9 In all the other doors of the building the installation of such a bolt is technically impossible.

10 Similar entrances were observed at some Hellenistic palaces in Eretria (Greece); cf. P. Auberson and K. Schefold, *Führer durch Eretria* (Bern, 1972), 89.

11 Pachomios, *Praecepta* 95.

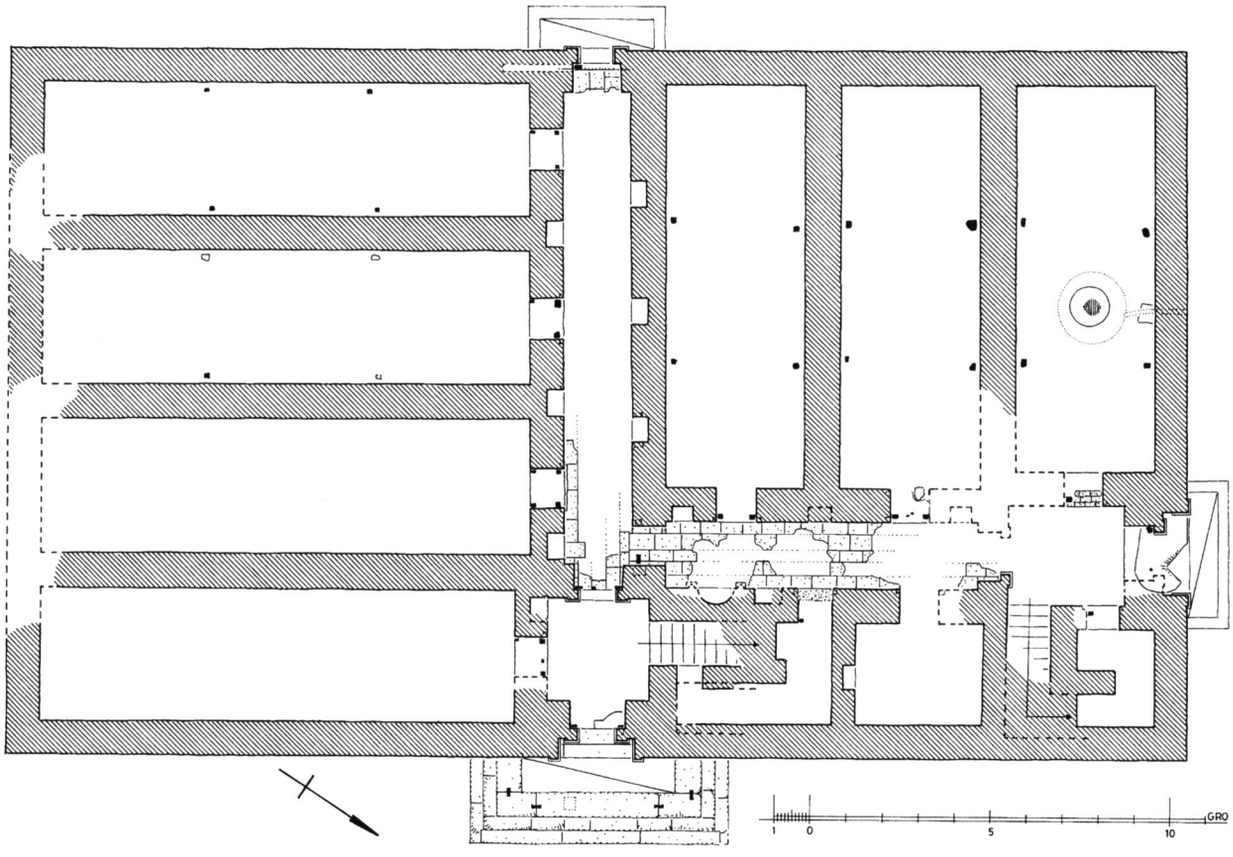

FIG. 5 The large western monk house

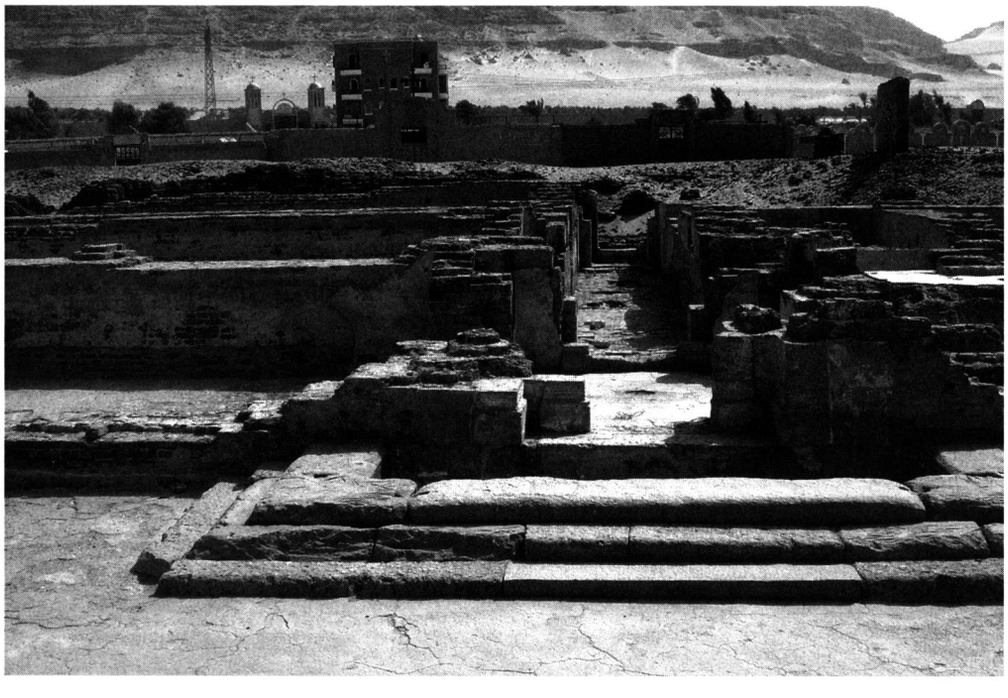

FIG. 6 Main entrance to the western monk house

FIG. 7 Stairway to the second floor of the southern section of the western monk house

provided with a wooden threshold fixed below the corners of the entrance openings. The thresholds served as abutments for the door leaves, since the door pivots are placed behind them. The doors of the southern dormitories have additional pivot holes on the inner side of the doorways, which obviously belong to a later installation. Along the interior walls of several dormitories are a number of roughly equidistant postholes in the floor for purposes not yet fully understood. There are always two holes opposite each other on either side, dividing the whole chamber into three equal sections. Finally, in some rooms, where the plaster is better preserved, there are a few traces of geometrical paintings, remains of graffiti, and red crosses. The graffiti are unfortunately so worn that one can hardly make any sense out of them.

The curious water cistern below the floor of the first room on the north was also added later, probably when the congregation of monks was reduced in number and this room was no longer used as a dormitory. The pipe at the foot of the northern wall, through which the cistern was filled with water, was obviously cut into the wall at a later date. Also the upper surface of the cistern is higher than the normal surface level of the floor. On probably the same occasion, when the cistern was added and the pipe was installed, the floor level of the doorway was raised by one layer of bricks.

The general construction method of the building is similar to that of the eastern monk house. Both were built entirely with fired bricks, while the corners were reinforced with squared limestone blocks. There are some slight differences to be observed, however. In

the western monk house the inner walls stand upon three courses of bricks, while there are only two layers of bricks beneath the floors of the rooms. The building process started with the erection of the foundations of the outer walls. When this was finished the inner area of the building was filled with sand and carefully leveled. Then, nearly where the inner walls would be placed, one course of bricks was laid, bedded in sand, while the areas beside them received a layer of Nile mud of approximately the same height. Afterward, the whole inner area of the building was covered with two further courses of bricks. Only when this was finished did the masons begin to construct the inner walls, laying again at first only one course of bricks. It is noteworthy that this first course of bricks also continues over the sections where the doorways were later positioned, serving thus as the thresholds of the doors. Then above this general layer the doorjambs were erected, consisting in all cases of ashlar masonry.

All the rooms in this building were originally provided with simple plastered floors consisting of lime mixed with small crushed limestone pieces. During a later period, when these concrete floors probably showed many traces of wear, the two corridors received a pavement of sawn limestone slabs, while all the sleeping rooms kept their original plastered floors. Only the floor of the eastern entrance chamber of the southern section was also refurbished, but with an ordinary plastered floor of reddish *opus signinum*.

The size of the large accommodation chambers in both monk houses contradicts the stipulation of Shenute that the monks should be accommodated two or three to a cell. Did Shenute perhaps mean that the number of two or three should be understood as the minimum? Or are the smaller cells meant for the monks of higher rank? On the other hand, both buildings were constructed after the death of Shenute, probably during the sixth century. In any case, they are not as late as originally supposed in our earlier report,[12] as we have learned from the discovery of a hoard of seventh-century gold coins (see below, section III). Close to the outer southeast corner of the western monk house was found a vessel with a large number of solidi, all from the time of the emperors Phocas (602–610) and Heraclius (610–641);[13] it could have been buried only after the construction of the monk house.

12 Grossmann et al., "Excavation," 378.

13 P. Grossmann and M. Ali Mohamed, "On the Recently Excavated Monastic Buildings in Dayr Anbâ Shinûda: Archaeological Report," *BSAC* 30 (1991): 53–63, esp. 60ff.

I.1.3. THE SO-CALLED SMALL REFECTORY AND THE ATTACHED BUILDING TO THE SOUTH

Further information was gained concerning the small peristyle building to the west of the church (fig. 8), which we interpret as one of the refectories of the monastery.[14] We are not proposing any changes in the basic outline of this building. However, on the east side of the short remaining section of the east wall there came to light remains of a pavement with large, roughly cut limestone blocks. The blocks are typical of an outside pavement, thus confirming that the eastern wall was really an outer wall. The two blocks running along the exterior of the wall slightly higher than the pavement remains must be interpreted as a sitting bench, similar to structures often found in late antique monuments in Egypt.

Inside still survive large sections of the original pavement (fig. 9), consisting of relatively thin, sawn limestone slabs. The slabs are laid according to ancient custom in strips parallel to the longer walls, in the direction people would normally move. Laying the slabs in a transverse direction would be quite unusual, and even more rarely were they laid in diagonal strips,[15] as is fashionable in modern times.

In some instances later installations of brick masonry were built above this pavement. Remains of a low circular or semicircular wall in the southern part between the southwestern corner pillar and the next square pillar to the east might be interpreted as a circular sitting bench, such as is often found in the

14 See also our earlier report, Grossmann et al., "Excavation," 373f. fig. B. We know from the written sources that the monastery had more than one refectory; cf. B. Layton, "Social Structure and Food Consumption in an Early Christian Monastery: The Evidence of Shenute's *Canons* and the White Monastery Federation A.D. 385–465," *Le Muséon* 115 (2002): 34.

15 The single example known to me is of the church in the small monastic settlement of Kum al-Namrud, to the south of Oxyrhynchus; cf. P. Grossmann and S. F. Fathy, "Early Christian Ruins at Kom al-Namrûd," *BSAC* 33 (1994): 69–78, esp. 69ff. fig. 1 (not indicated in the plan). An example from Syria is to be found in the atrium of the church of St. Mary at Shêkh Sleman; cf. H. C. Butler, *Early Churches in Syria*, 2nd ed. (Amsterdam, 1969), 56ff. fig. 56.

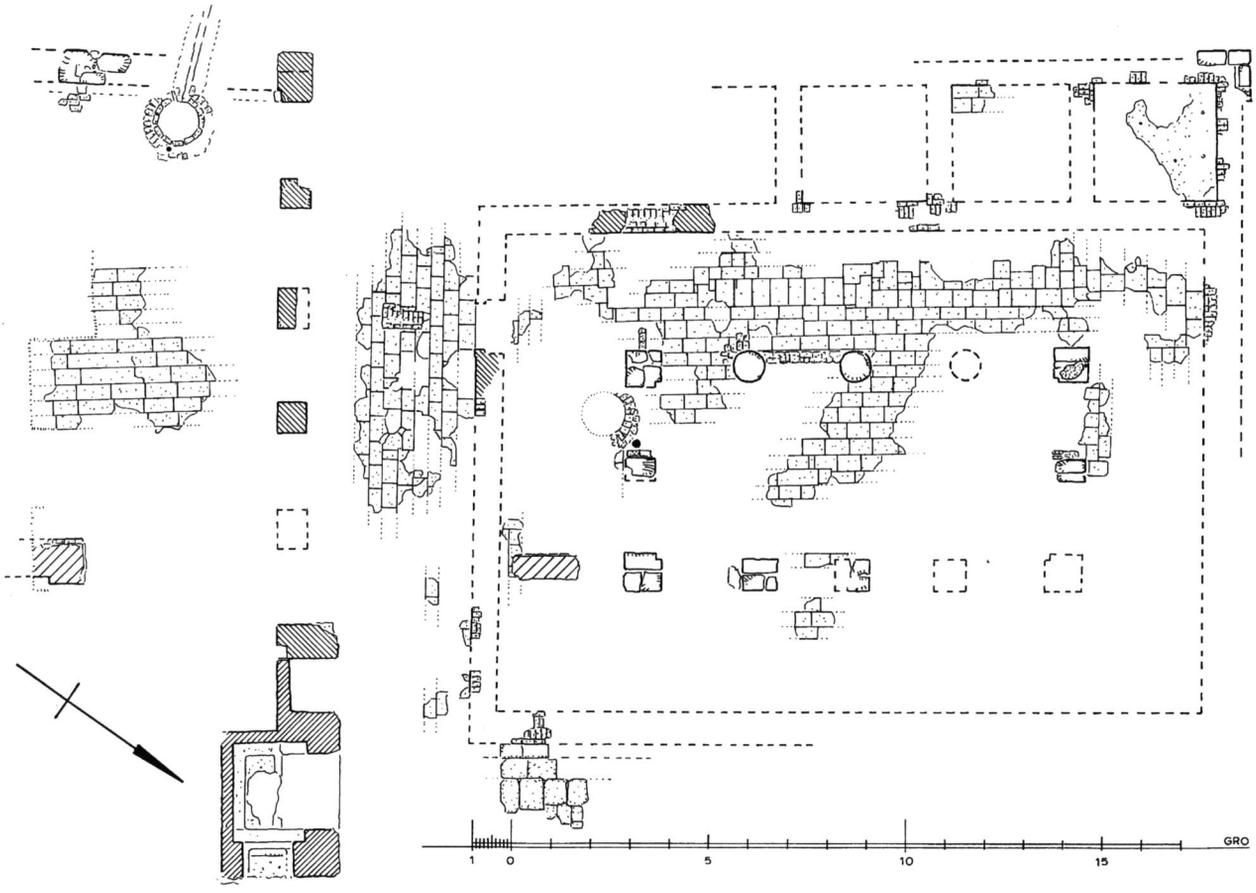

FIG. 8 The so-called small refectory and the building remains to the south

refectories of Egyptian monasteries.[16] Between the two round columns on the western side a straight wall serving as a low bench was erected. The other interior walls, which are higher than these benches, served different purposes and might also be of later date.

On the outer western side of the peristyle, where two outer rooms were discovered on the occasion of our last survey,[17] remains of a third room could be traced. In addition, our interpretation of the heavy stone blocks at the outer northwest corner of the building should be slightly modified. Apparently these stones do not belong to the original fabric, but were added at a much later time to reinforce the corner.[18] Also, these stones seem to have been placed very roughly. The original corner might have been situated to correspond with the outer face of the northern and western walls of the peristyle building.

The function of these western rooms is not clear. Except for the northwestermost room, which has only an ordinary concrete floor, all the other rooms have the same kind of flooring as in the peristyle, consisting of thin, sawn limestone slabs. The pavements in these rooms are, however, considerably more worn than that in the peristyle.

16 Examples are mentioned in Grossmann, *Christliche Architektur* (n. 8 above), 289–92. Recently such circular benches were discovered in the refectory of Dayr al-Bakhit (western Thebes), where they were combined with fixed central tables, the arrangement demonstrating how the monks used these benches. Cf. D. Polz, "Theben-West: Dra' Abu el-Naga—Spätantike Klosteranlage Deir el-Bachit," in *Rundbrief des DAI Abt. Kairo* (September 2004): 7–9 Abb. 12.

17 See Grossmann et al., "Excavation," 373 fig. B.

18 Similar reinforcements of the corners of early Christian and medieval buildings are known from other sites.

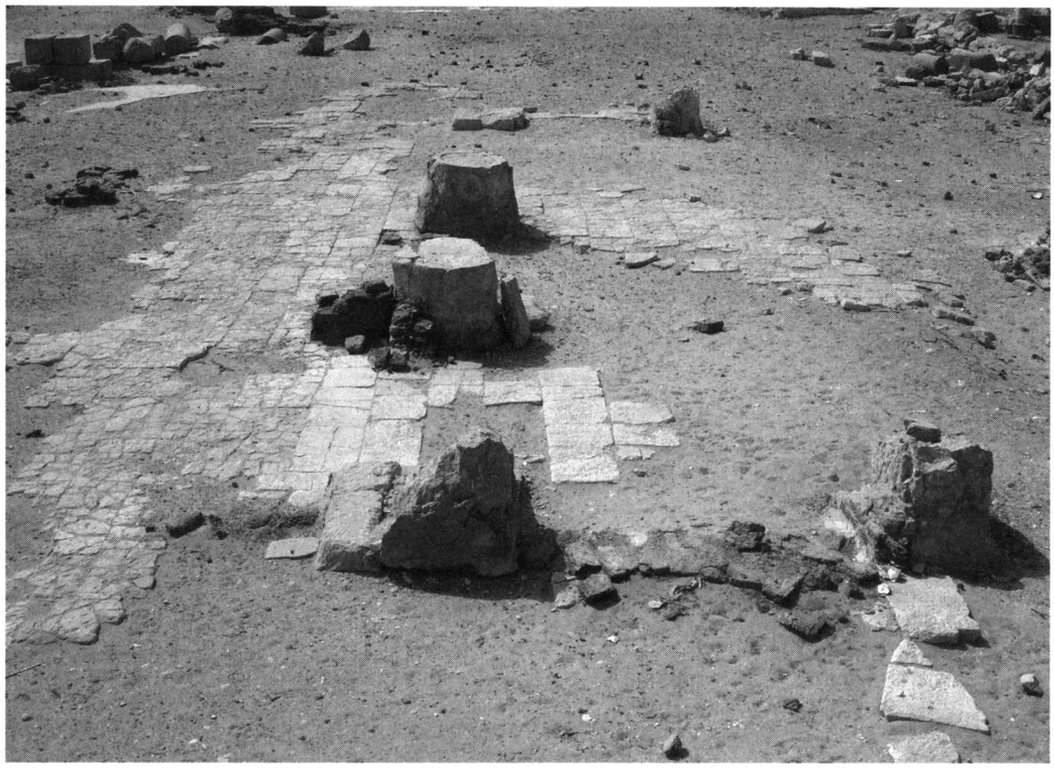

FIG. 9 Center of the so-called small refectory (looking north)

In the building complex with a long row of massive brick pillars, just to the south of the peristyle building, was discovered another wall section, which showed that the westernmost corner pillar was part of a longer wall running to the south. Along the inner side of the excavated section of this wall were discovered remains of a sitting bench. The channel passing through this wall to a pit just inside the building is of later date. Concerning the function of this building, one should note that on both sides (north and south) of the sequence of pillars the flooring consists of thin limestone slabs like those used in the peristyle building described above and which are usually found in indoor pavements. Consequently, this area should also be understood as the interior of a building. Since the small peristyle, which we would like to identify as a refectory, is too small for the whole brotherhood of the coenobium of the main monastery of Shenute (which according to the sources would be slightly less than two thousand men),[19] and since a much larger building is nearby, to the south, we might understand this neighboring structure as a larger, second refectory for the rest of the brotherhood. The problem remains, however, that no traces of additional pillars to support roofing over this second building could be found. (The thick piece of mud brick masonry which might have supported a roof in the southeastern area of the excavated section of the second building does not originally belong to this structure and is of later date.) Perhaps the

19 J. Leipoldt, *Schenute von Atripe und die Entstehung des national-aegyptischen Christentums* (Leipzig, 1903), 93, speaks of 2200 men and 1800 women, as mentioned in the Arabic life of Shenute, trans. Amélineau in *Monuments* (n. 5 above), 289–478, esp. 331, but these refer to the total number of all three congregations belonging to the monastery of Shenute; see also Layton, "Social Structure," esp. 27 n. 12. There are, on the other hand, some reasons to doubt these numbers, because the number of 2200 men includes also the monks of the smaller third monastery to the north. If the main monastery at Suhag under Shenute's leadership was also the largest one, that smaller third monastery must have had fewer than 400 men; otherwise the nunnery in the village of Atripe to the south would be the largest of all. Is there perhaps an error in the number, that the nunnery in the south housed only 800 instead of 1800 nuns? In such a case the main monastery at Suhag could have been easily the largest, with more than 2000 monks, leaving also a suitable number of monks for the third congregation to the north.

distances between the supports of the roof were wider than previously estimated. On the other hand, it is also possible that this building was not provided with a roof, so that the majority of the monks would have taken their meals in an unroofed building. This possibility finds support in one of the rules of the monastery, that in summer during a heat wave the food should not be taken at noon (the 6th or 5th hour) in the main refectory but "people shall rest in their Houses."[20]

At the eastern end of the row of pillars, between and to the side of two even larger pillars, there are extant some water basins, whose sizes and arrangements had been changed several times. They might indicate that the building was a refectory. Since, according to the written sources, bread was baked in the monastery of Apa Shenute only once a year, basins or vats filled with water to soak the dry bread would have been necessary.[21]

I.1.4. THE BUILDING WITH THE CRUCIFORM PILLARS

In our survey of autumn 2003, only the north side of the relatively well-preserved building with cruciform pillars was reexamined (figs. 1, 10–13, 18). Originally built of fired bricks, with a large northern court and a sequence of rooms on the south,[22] it was situated near the southwestern corner of the great church of the monastery and underwent several changes.[23] Traces of plaster show that the lower zone of the walls of the court, as well as of the two easternmost south rooms had a reddish plastered socle corresponding to the *orthostates* in classical architecture. The northern wall lies beyond the original boundaries of the excavation area and for that reason was not excavated by the SCA. By moving these boundaries slightly to the north, the present mission succeeded in exposing a section of the inner face of the original outer northern wall (fig. 12). Just like the opposite southern wall of the court, it appears to have two slightly protruding pilasters in symmetrical positions, dividing the whole length of the wall into three equal sections. The two southern pilasters still have their decorated bases of limestone in situ, while the respective piece of the western pilaster on the northern side was removed at some point in time, leaving only a deep empty hole in the wall. In addition, the northern wall shows a larger interruption in the middle, probably marking the original entrance, on the building's axis. It seems also that on both north and south walls the sections between the pilasters were provided with small rectangular niches, since clear traces of such a niche have been identified near the western end of the south wall. This niche was later walled up with the masonry of the second-period installation (fig. 13). It is even possible that a single niche of a similar kind was placed exactly in the middle of the southern wall, marking the center of this wall opposite the door on the north side. A few sections of the original floor connected to the surrounding walls of the building are preserved.[24] As in the majority of the buildings in the monastery, they consist of a layer of fired bricks probably once covered with concrete flooring.

The west side of the building does not have an entrance. The three narrow rooms located on this side have only a technical function of resisting the pressure of the higher level of the terrain on this side. There is also no outer facing of the exterior wall of this section. Only the unit further to the south is accessible from inside through an opening nearly as wide as the room itself. It is possible that with the help of one central column this opening was originally divided into two smaller, arched entrances.

The four rooms on the south side of the building are roughly equal in size, but very different in their interior arrangements and access points. All of them were fitted with a number of small rectangular wall niches, many of which have disappeared during the last years.[25] These niches are distributed on both sides of the

20 Cf. B. Layton, "Rules, Patterns, and the Exercise of Power in Shenoute's Monastery: The Problem of World Replacement and Identity Maintenance," *JEChrSt* 15 (2007): 45–73, esp. 53n52.

21 Layton, "Social Structure," 33 n. 39; Arabic life of Shenute, 460 (Amélineau ed.). Very interesting examples of such vats for soaking the dry pieces of bread were recently discovered in the monastic settlement around the temple of Ptolemaios XII in Atripe; see El-Masry, "More Recent Excavations at Athribis in Upper Egypt" (n. 4 above), 205–18, esp. 217f., fig. 4.

22 Discussed in P. Grossmann, "Sohâg," in M. Bietak, "Ägypten," *AfO* 25 (1974–77): 310–36, esp. 323–25 and fig. on p. 324; see further Grossmann et al., "Excavation," 374f. fig. A.

23 Indicated previously in the plan in Grossmann and Ali Mohamed, "Monastic Buildings" (n. 13 above), fig. 1.

24 Not indicated in the plan (fig. 13).

25 Several niches which I recorded in my drawing of 1989 are no longer traceable.

FIG. 10 Toilet units, with remains of the building with the cruciform pillars in the background

FIG. 11 Remains of the building with the cruciform pillars (looking south)

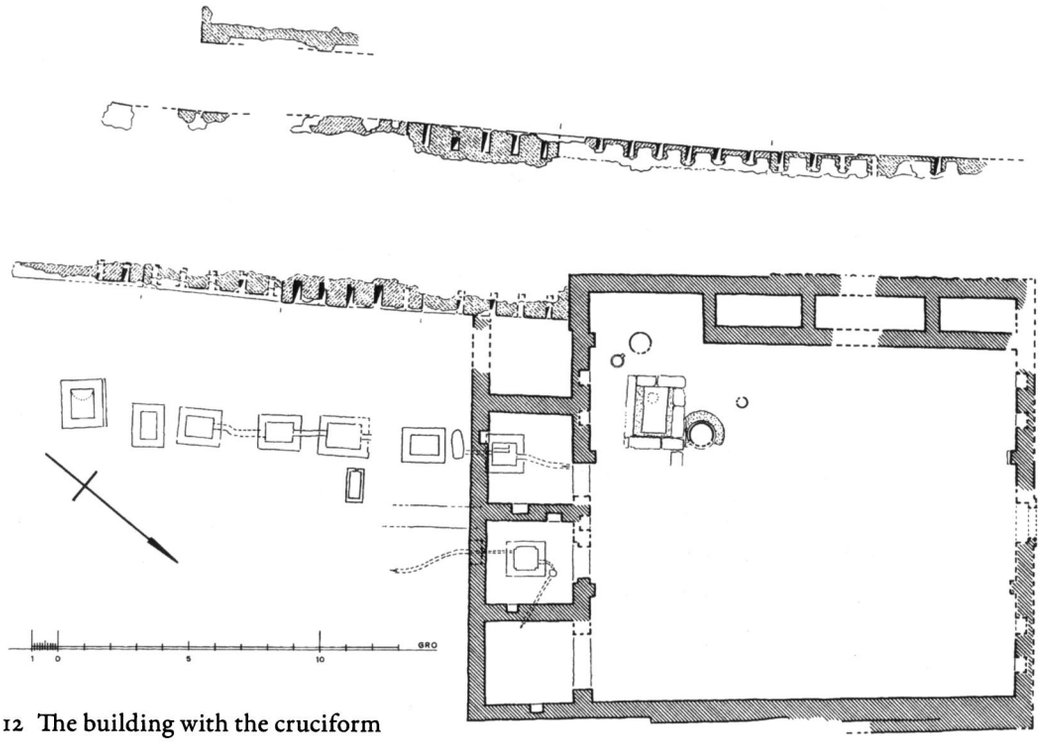

FIG. 12 The building with the cruciform pillars, original period, with the latrines to the west and the series of vats to the south

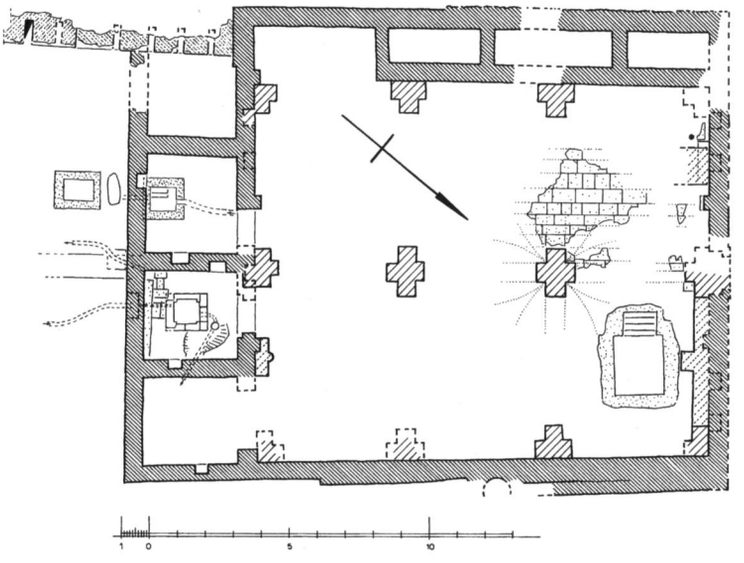

FIG. 13 The building with the cruciform pillars, later period

FIG. 14 The two central southern rooms in the building with the cruciform pillars

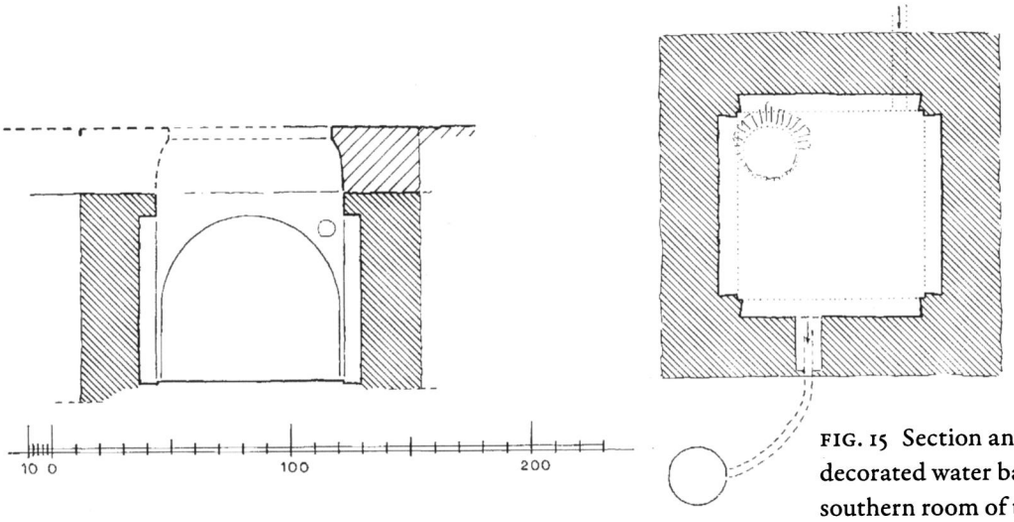

FIG. 15 Section and plan of the decorated water basin in the central southern room of the building with the cruciform pillars

partition wall so that they do not interfere or overlap with each other.[26]

The easternmost room has the largest opening from the court. It has been despoiled below the original floor level. The entrance into the next room, which seems to have been the most important, consisted originally of a central door of ordinary size, which was later enlarged on the west side (fig. 14). Roughly in the middle of the chamber is a small, square, reddish painted water basin, sunk into the ground and nicely decorated on the inside, to be understood as a kind of embellishment (fig. 15). It is decorated at the sides, with small projecting inner corner pilasters combined with small narrow arches, which support the slightly protruding limestone slabs of the basin's upper frame.

26 The same distribution of wall niches can be observed in other monastic buildings in Egypt.

FIG. 16 Central section of the southern outer wall of the building with the cruciform pillars (looking from outside)

A slightly curved channel for the water supply, discovered on the south side of the building, passes through the south wall below a small low arch at the foot of the wall (fig. 16). The opening to the basin lies close to its upper frame at the west end of the south side. An overflow outlet is located at nearly the same level, roughly in the middle of the northern side, from which a curved channel leads to a medium-sized ceramic vessel sunk nearby into the ground; from here another pipe at a much lower level leads straight to the east, where it appears again below the partition wall of the eastern room. The further continuation is not in evidence.

The present floor of the east central room, about 0.25 m higher than the original floor, belongs to the second period of the building and consists of a pavement of sawn limestone slabs, several fragments of which are still in situ. The surface level of this pavement slopes down slightly to the southwest corner of the room, from which a later channel was cut through the wall. The channel proper was made of short ceramic tubes. The continuation of this channel is easily traceable on the outer side of the building for several meters further to the south, where it is then finally interrupted (figs. 14, 16).

The door of the third room was asymmetrically placed because the space in the center was occupied by the pilaster facing the court. A basin next to the south wall with two little steps on the west side served as a bathtub (figs. 14, 17). It belonged originally to a row of basins that started in the north with a slightly larger basin (remains of it and of several other circular vessels are traceable in the southwestern part of the court) and continued in a southerly direction (see fig. 12 and below). The basins thus antedate the house with the cruciform pillars (fig. 12). When this house was built, all those basins fell out of use except the one in the third room, which was reused as a bathtub. The present surface of this basin corresponds to the original floor level of the building. When it was transformed into a bathtub, its surface was raised about 0.22 m to match the floor level of the other units of the structure. Later, builders raised this surface again, when they increased the height of the floor around the tub by another ca. 0.25 m and constructed the vaulted ceiling over the northern court (see below). The addition on this occasion of a third step, above the two little steps in the bathtub, is conjectural. The fourth room at the western end is not accessible from inside the building.

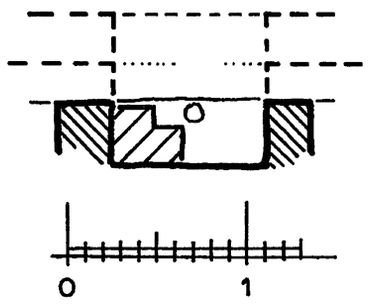

FIG. 17 Section of the bathtub in the building with the cruciform pillars

During a second building period the court was roofed by dividing it with several cruciform, T-, and L-shaped pillars, resulting in six roughly equally sized rectangular bays, which were once covered with hanging domes (fig. 13). The beginnings of some of these domes are still detectable above the northernmost cruciform pillar in the center of the original court (figs. 11, 18).[27] Along the northern wall, one can identify remains of one L-shaped pillar in the northeast corner and fragments of a T-shaped pillar in the middle. The placement of the latter blocked the original entrance into the building; it seems that a new entrance on a higher level was built in the west part of the northern wall where a few remains of an inner stairway survive. An L-shaped pillar in the northwest corner is missing, since this whole corner is completely destroyed. Remains of similar L- and T-shaped pillars are detectable also on the other three sides of the court. Surprising are the rather low foundations of all these pillars, which are at variance with the heavy weights of the domes they had to carry. This may explain the early collapse of the vaults.

The new floor of the court consisted of a sawn limestone pavement, a large section of which survives in the northwestern sector. It is about 0.25 m higher than the original floor of fired bricks mentioned above. The upper parts of the many vessels and basins[28] in the area are, as already said, all destroyed, and thus must be earlier than the original floor of fired bricks. Only the large and deep square basin in the northeastern sector of the building, with a sequence of steep steps on its western side, corresponds roughly with the level of the later pavement and may thus belong to the same period. Its purpose is unknown.

During this second building period all the rooms on the south side received a new inner floor raised by ca. 0.25 m, as in the court.

Remains of a third generation of building activity consist of a heavy reinforcement constructed along the easternmost section of the north wall between the central T-shaped and the northeastern L-shaped pillar. In the middle this reinforcement is provided with a further supporting buttress. A corresponding installation on the western section of this wall is not in evidence and may never have existed. In any case, the building's remains on the western side have to be interpreted in a different way. There is a kind of stairway made of limestone blocks and, beside it, a small rectangular vessel followed by a ceramic vessel sunk into the ground. Unfortunately only a very short section of that stairway at the western end is visible. The rest is covered by a block of brick masonry apparently corresponding to the reinforcement at the eastern end of the wall. Since the building is sunk relatively deeply into the ground—what is actually visible of the south wall lies considerably below the level of the general terrain on this side—a little stairway leading from the outside level around the church down to the level of this building is what one would normally expect in this location. Perhaps when the court was roofed and a T-shaped pillar was erected against the central part of the north wall, the original entrance at this position had to be abandoned and a new one opened further to the west.

The many square and rectangular basins in the lower area to the south of the building (figs. 12, 14) belong to an earlier period, as already stated, and went out of use when the house with the cruciform pillars was built, except the first one to the north, which was reused as a bathtub. They were all connected to each other with thick ceramic pipes and probably started from the slightly larger basin situated in the southwestern sector of the court of the later building. The upper frame of this basin, as already stated, had been cut off below the original floor level of the court and thus no longer functioned when the house was built. Apparently most of the basins were unroofed. Only the last one to the south, which is also considerably deeper than the others, shows remains of a barrel vault. The function of these basins is not clear. Their distribution roughly parallel to the sequence of latrines a few meters to the west is purely accidental.

27 Grossmann, "Sohâg," 323–25, fig. 11.

28 Not indicated in the plan (fig. 13). Also missing are some irregular mud brick walls which equally predate the building.

FIG. 18 Western section of the building with the cruciform pillars

I.1.5. THE SEMICIRCULAR VAT SOUTH OF THE CHURCH

To the east of the building with the cruciform pillars SCA excavations exposed remains of several mud brick structures and other installations, obviously of earlier date. Because of their poor and incomplete state of preservation, they were not included in our survey. Slightly further to the east, at the eastern margin of the excavation area south of the church, and not far from the southern main entrance into the church, the SCA exposed an interesting and unusual structure of fired brick masonry (figs. 19–20). Its main feature is a semicircular vat, opened to the east and flanked on this side by two columns, whose bases of black granite with high plinths are still in situ. Their shapes, with a sharply edged *torus* above the high plinth, correspond nicely with similar bases of the Diocletianic installations in the temple of the goddess Triphis in Athribis (not published) and might thus also belong to the Diocletianic period. The floor level of the vat corresponds with the pavement in front of it. Its frontal brick barrier is at the same height as the narrow protruding ledge running concentrically along the inner walls of the vat. Traces of a small pipe leaving the basin at its right corner indicate that the vat was used to store water. During a later period a step consisting of one large block of limestone was placed in front of the barrier between the two columns.

Doubtless this semicircular vat belongs to a larger, still-unexcavated structure, of which little has been made visible until now. On both ends of the vat the walls continue to the north and south. While the south wall corresponds in thickness with the semicircular rear wall of the vat, the north one appears to be considerably thicker. We may speculate that after a certain distance another vat of similar shape would have been placed further to the north.

Next to the vat are two circular marble basins of smaller size, with an inner diameter of 1.15 m. Both

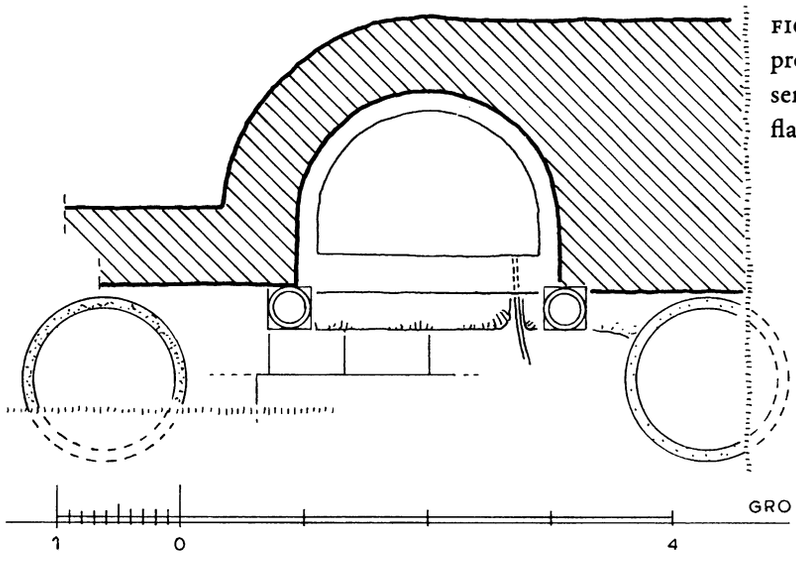

FIG. 19 Plan of the probably Roman semicircular vat with flanking columns

FIG. 20 View on the probably Roman semicircular vat with flanking columns

are symmetrically placed to the sides of the vat, but, although they were inserted into the floor, they have to be understood as later because they are not connected anywhere with the masonry of the walls. While the northern basin is preserved up to about 0.50 m above floor level, only the traces of the bottom of the southern one are still in evidence.

At a later period this arrangement changed. The semicircular vat was filled up with a rough accumulation of fired bricks, and the same material covers also the area in front of it.

We do not know the purpose of this structure, which appears rather strange in a monastic context. It possibly belongs to an earlier period, before the monastery was built. It could thus have been a part of a Roman bath building, perhaps belonging to the "bath" vaguely identified by W. M. Flinders Petrie in the early twentieth century.[29]

I.1.6. FURTHER OBSERVATIONS ON THE GREAT WELL

With the cleaning of the stairway leading down to the water table of the great well in the northwestern region of the monastery, we were able to make some new observations, which allowed us to correct the results of earlier investigations (figs. 21–22).[30] Apart from some seasonable changes, the water table in the well today lies ca. 12.50 m below the general surface level of the area, and corresponds roughly with the conditions in antiquity. The lower part of the well was cut into the bedrock,[31] while the upper part consists entirely of brick masonry, except for a few blocks of ashlar masonry laid directly upon the irregular and probably slightly smoothed upper surface of the rock and some lines of other blocks marking the springers of the arches.

The ground plan of the well is arranged in a rather unusual manner. Its central part consists of an almost square shaft measuring 3.95 by 3.40 m and faced with tall arches on all four sides. With all probability this central shaft was covered with a wooden roof to keep dirt and debris out of the water on windy days.[32] The lateral arches on the north and south sides are rather flat, apparently functioning as supporting structures to carry the above-mentioned roof. The two arches at the slightly longer east and west sides extend considerably further from the shaft (2.25 m) and both ends have an even narrower section. Directly before the beginning of these narrower sections two broad apertures, each 2.15 m long and 0.75 m wide, were inserted in the apex of the arches for the installation of two *saqqia*s to lift up the water from below. At the sides of the eastern aperture are traces of such devices once in place at the described positions. Finally, down in the well and close to the level of the water table, two large and deep-arched wall niches are inserted into the east and west walls, together occupying about two-thirds of the walls (fig. 23). They are not centrally placed, but are both set against the northern sides. The eastern niche frames the lower end of the stairway, which leads down to the water table, while the western one has no apparent special function. In the month of November its threshold lies about 1.10 m above the water level. One meter below and visible only in autumn a much smaller arched niche is set into the wall, situated exactly in the middle of the west wall. To its right is a hole in the rock, probably of natural origins. Its size and depth could not be measured.

The well's method of construction is interesting. Both the longer sides (north and south) are understood at least technically to be different structural elements. They were erected independently and only at the top were they combined with arches. In a second building phase, the open space between the two sides was walled up to the apex of each arch. It seems that builders used inferior brick material for the latter. That both parts (arches and filling) were indeed two different structural elements and not built at the same time is also indicated by the careful plastering of the intrados of the two arches at the eastern and western ends, although they were later completely blocked.

In the upper part of the construction clear differentiation was also made between the structural elements and the non-structural elements, which contribute to

29 W. M. F. Petrie, *Athribis,* British School of Archaeology in Egypt 14 (London, 1908), 13–15, esp. 13.

30 See Grossmann et al., "Excavation," 379f. fig. E.

31 The fact that the workers encountered bedrock instead of water may have been why they had a problem when digging the well. This was successfully solved by Shenute, as mentioned in his Arabic life, 336 (Amélineau ed.), who simply advised his laborers to continue to hew out the rock. In the text, however, this story is incorrectly related to the digging of the smaller first well.

32 On *khamsin* days much sand, thousands of small leaves, straw, and today also numerous plastic bags fly through the air.

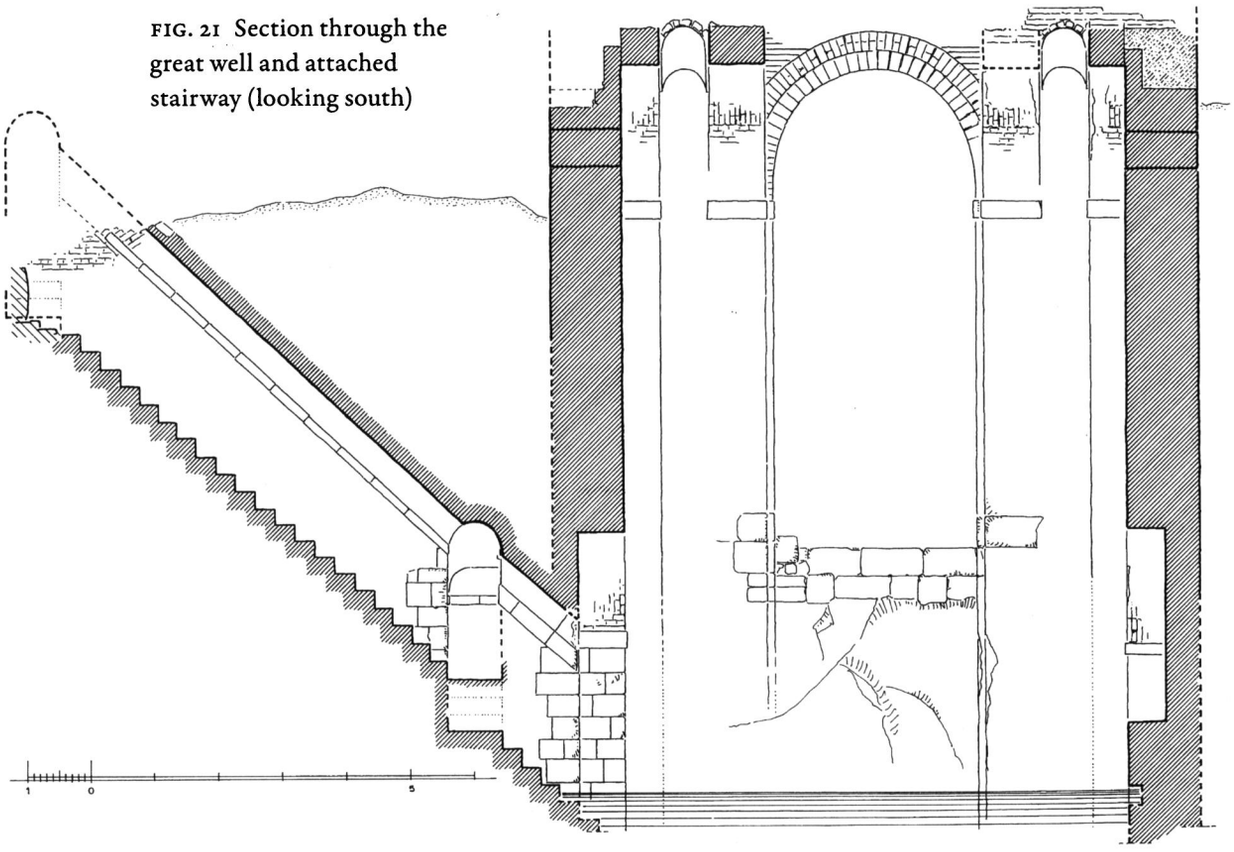

FIG. 21 Section through the great well and attached stairway (looking south)

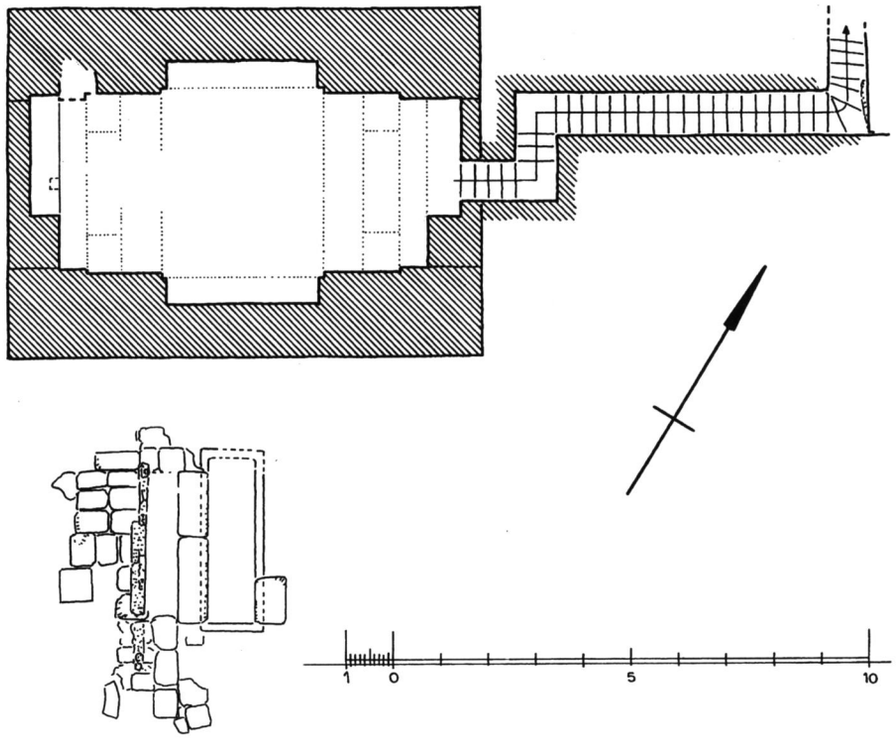

FIG. 22 Plan of the great well and adjacent washing place

FIG. 23 Lower section of the great well (looking west)

stability only by their weight. While the former are of well-fired brick masonry bonded with lime mortar, the bricks of the latter were bonded only with Nile mud, as can be seen on the west side.

A final and even more interesting observation concerns the inner spatial proportions of the well. As was observed only by chance, the rather complicated formation of the two opposite longer sides corresponds exactly with the proportions of the central square unit of the triconch in the great church of the monastery, but reduced by fifty percent.[33] Only the transverse width of the well is enlarged by exactly ten percent in comparison with the corresponding unit in the church. Also the curious principle of the building of the well—that is, treating both its sides as two independent elements—has its model in the church sanctuary. Since there is no technical reason for shaping the well in exactly the same way as the church sanctuary, there must have been some underlying concept, which eludes us today. This relationship between well and sanctuary suggests that Shenute may have been directly engaged in the construction of the well, because no one else would have known the proportions of the center of the triconch of the church to repeat them correctly in the ground plan of the well. Shenute's own understanding of the building of the well as a very significant action in the establishment of the monastery becomes clear in a passage of his Arabic life.[34] During a three month period when about twenty thousand refugees were assembled in the monastery, Shenute determined that the original, small well could not supply enough water for so many people and was close to drying up.[35]

33 Mentioned already in our earlier report; cf. Grossmann et al., "Excavation," 379.

34 Arabic life, 417–18 (Amélineau ed.); the digging of a well described in the Coptic life of Shenute (English transl. D. N. Bell, *The Life of Shenoute/Besa* [Kalamazoo, 1983], ch. 24), refers, according to the events mentioned, only to the small earlier well (described in the Arabic life, 335–36), but wrongly placed in connection with the sea miracle of Shenute; see also the discussion of the work in the well in P. Grossmann, "Zum Grab des Schenute," *JCoptS* 6 (2004): 85–105, esp. 96f.

35 J. Leipoldt, "Berichte Schenutes über Einfälle der Nubier in Ägypten," *Zeitschrift für ägyptische Sprache und Altertumskunde* 40 (1902–3): 126–40.

FIG. 24 Upper end of the stairway of the great well

Realizing this, he immediately started digging this new well to remedy the situation.

The rather steep stairway to the east of the well, which allows one to descend to the level of the water table, was apparently not meant for general use.[36] Carrying an amphora or any other vessel filled with water back up the steps would have been rather difficult. In our opinion, the stairs were built only for maintenance, even though they show considerable traces of use. On the other hand, this stairway is well preserved and carefully constructed. All the steps are still in situ, except in the uppermost section, where the stair turns again to the north. The steps consist of limestone blocks, which are not bonded into the side walls but placed between them, starting at the bottom after the side walls were already standing. The latter were mainly of brick masonry except for the projecting corners at the lower end, which were built of ashlar masonry. The ceiling of the stairway also consists of brick masonry constructed according to the usual method in Egypt with sloping, pitched brick vaulting (fig. 24). To guarantee a straight surface upon which the pitched arches could be erected, a layer of flat limestone blocks was inserted into the masonry. The lower end of the stairway, which is covered by water, was not excavated.

A short distance to the south of the well one finds a medium-sized platform made of thick granite blocks (fig. 22) sloping gently to the east, where there is a deep and rather large limestone vat at the end. This vat is connected with a broad off-flow channel proceeding first to the south and then to the east. The whole installation should be understood as an ancient washing place. The surface of the granite pavement shows traces of *opus signinum* plaster. At a later stage the surface of the granite platform was subdivided into smaller fields by building up some narrow and low border walls with fired bricks.

36 The wells in other monastic establishments of the region, the one in the monastery of Anba Bishuy and of the monastic community in the Pharaonic temple of the lion-headed goddess Triphis (Repyt), built under Ptolemaios Euergetes II (145–116 BCE), and which might be identifiable with the nunnery associated with the monastery of Shenute, do not have similar stairs. Both examples are unpublished; for a general plan of the latter see El-Masry, "More Recent Excavations at Athribis in Upper Egypt" (n. 4 above), 205–18, Abb. 4.

I.2. *The Newly Surveyed Complexes*

I.2.1. THE WESTERN OUTER WALL OF THE MONASTERY

The SCA uncovered the western wall of the monastery for a length of more than 170 m (fig. 1).[37] Apart from a considerable number of various later repairs, the wall is composed of two main phases, a thinner original structure and a later reinforcement on its inner side, which nearly doubled the thickness of the original construction. The original height of the wall is no longer discernible, but it was certainly not considerable. The later reinforcement is provided with a roughly regular sequence of small inner buttresses. Evidence of a later walled-up doorway exists in the exposed section at only one position located behind the large western monk house.

The strength of this boundary wall is not impressive. Both sections of the wall have an overall thickness of 0.80 m (original) and 0.65 m (second).[38] The masonry of mainly oarlock-shaped courses in the second phase structure, even at the inner buttresses which expose the full length of the bricks (fig. 25) on the outer surfaces, is the worst possible building technique. Its single advantage consists in the fact that walls could be built more quickly than with traditional bonds. With this way of building, the thin walls could protect only against wild animals and small gangs of robbers, but not against a large army. The monastery's ability to protect more than twenty thousand refugees from neighboring villages for a period of three months against an incursion of the Blemmyes in the decade around the middle of the fifth century[39] could have been made possible only by an arrangement between Shenute and the leaders of the Blemmyes, as is in fact recorded in the Arabic life of Shenute.[40] It would have been easy for several thousand invaders to climb over this wall or cut a hole through it,[41] and destroy everything inside (something the Persians did later during their incursion into Egypt in 619).[42] Numerous building remains and large portions of the wall show heavy traces of destruction by fire, which could have happened only during the course of a hostile attack.

It seems that the outer wall of the monastery was originally a freestanding structure. The remains of buildings extant in close proximity to the outer wall, sometimes even leaning against it, are all of a considerably later date and the majority are of poor construction. Nor does one have the impression that these structures, several of them built with very thin walls, were of particular importance. They appear to have served mainly as storehouses. The larger, mostly square chambers were originally vaulted with hanging domes. The remains show interesting details of the construction of these domes.

37 Briefly described already in P. Grossmann, "Report on the Survey Activities in the Region of the Monastery of Apa Shenudi at Sohag, Carried Out in April 2002," *ASAE* (in press).

38 According to contemporary opinion such dimensions were not strong enough for defense, as pointed out by Procopius, *De aed.* 3.2, who considers walls about four feet thick and twenty feet high as insufficient.

39 Leipoldt, "Einfälle" (n. 35 above), 13'off.; Arabic life of Shenute, 396ff. (ed. Amélineau); perhaps this attack is identical with the one mentioned in *P.Cair.Masp.* I 67009 of the Justinianic period, during which the town of Antaeopolis was badly destroyed. The date of this event with the remark of τῶν πάλαι ὑμῶν γονέως is unfortunately very imprecise; see also L. Mitteis and U. Wilcken, *Grundzüge und Chrestomathie der Papyruskunde*, vol. 1, no. 1, *Grundzüge* (Leipzig/Berlin, 1912), 69. The idea of S. Emmel, "The Historical Circumstances of Shenute's 'God Is Blessed'," in *Θεμέλια: Spätantike und koptologische Studien*, ed. M. Krause and S. Schaten (Wiesbaden, 1998), 81–96, esp. 87f., that the 20,000 refugees mentioned by Shenute include the whole rural population from Kynopolis to Panopolis, an area of some 250 km in length, appears, however, less convincing. It is doubtful that the refugees would have moved in the direction from which the invaders came. On the other hand, the rural population in this large area would have exceeded considerably 20,000. According to the calculation of J. Krüger, *Oxyrhynchos in der Kaiserzeit: Studien zur Topographie und Literaturrezeption* (Frankfurt, 1990), 37f., based on the notes of Josephus (*Bell. Jud.* 2.16.4) and Diodorus (1.31.8), the rural population of the province of Oxyrhynchos with 900 km^2 was ca. 258,000 persons, which comes to 287 persons per km^2 or, in other words, a population of 20,000 would cover 69 km^2, which with a width of 15 km of cultivable land on both banks of the Nile to the south of Suhag, would correspond to a strip of roughly 4.6 km in length stretching across both sides along the river. One may double this distance, considering that perhaps a large part of the population would have sought protection in the town of Panopolis, but they would never come from places as far away as Kynopolis.

40 Arabic life of Shenute, 397f. (Amélineau ed.).

41 How such a passage could be cut through a wall with a thickness of eight bricks (apparently sun-dried bricks) is described by Xenophon, *Anabasis* 7.8.12–14.

42 On details on the Persian invasion see A. J. Butler, *The Arab Conquest of Egypt and the Last Thirty Years of the Roman Dominion*, 2nd ed. (Oxford, 1978), 69ff.; on the date cf. R. Altheim-Stiehl, "The Sasanians in Egypt—Some Evidence of Historical Interest," *BSAC* 31 (1992): 87–96; eadem, in *CoptEnc* 6:1938–41.

FIG. 25 Section of the western outer wall of the monastery

I.2.2. THE L-SHAPED BUILDING TO THE WEST OF THE EASTERN MONK HOUSE

Very interesting results were gained by cleaning the multiroomed structure to the north and east of the area containing the large granite vessels (fig. 26).[43] The structure is divided into two different parts and developed into its present state over the course of several building phases. From the earliest period survives only a mud-brick foundation of a wall running east-west, with a strong rectangular pillar built of two blocks of ashlar masonry standing upon it.[44] Further to the east some portions of mud-brick masonry also survive. However, in general too few traces of this structure remain in place to make sense out of them.

At some point, a building with several rooms was added on the north side of the above-mentioned earlier foundation wall (fig. 27). In a way, it can be understood as surrounding the remaining ashlar pillar of the earlier structure with a new wall running east-west all along its south side. An original entrance is not in evidence, but one can assume that it was probably located on the west, where a kind of corridor starts running eastward parallel to and partly above that earlier foundation. The south side of this corridor lies directly at the south edge of the earlier wall.

To the north of this corridor are distributed several rooms of different sizes, arranged roughly symmetrically. In the middle and practically in the center of the whole northern part of the building is an unusually shaped room with repeatedly rabbeted corners (fig. 27). This room was probably once covered with an oval dome. The other three rooms on this side show traces of an unusual wall encasement, made of fired bricks laid on edge and bonded in lime mortar. The apparent main chamber of this complex lies directly to the north of the domed chamber, from which it was also accessible. It is the smallest chamber of all, but, apart from the corridor and its adjacent section to the east, the only one provided with a pavement of regularly sawn limestone slabs. The two other rooms to its east and west are equally accessible from the domed chamber. The entrance into the eastern room was later carefully walled up with dressed stones bonded in lime

43 Briefly mentioned in Grossmann et al., "Excavation," 372.

44 Several similar stone pillars in that area might all belong to the same earlier building, but they are too few to gain a real understanding of their arrangement.

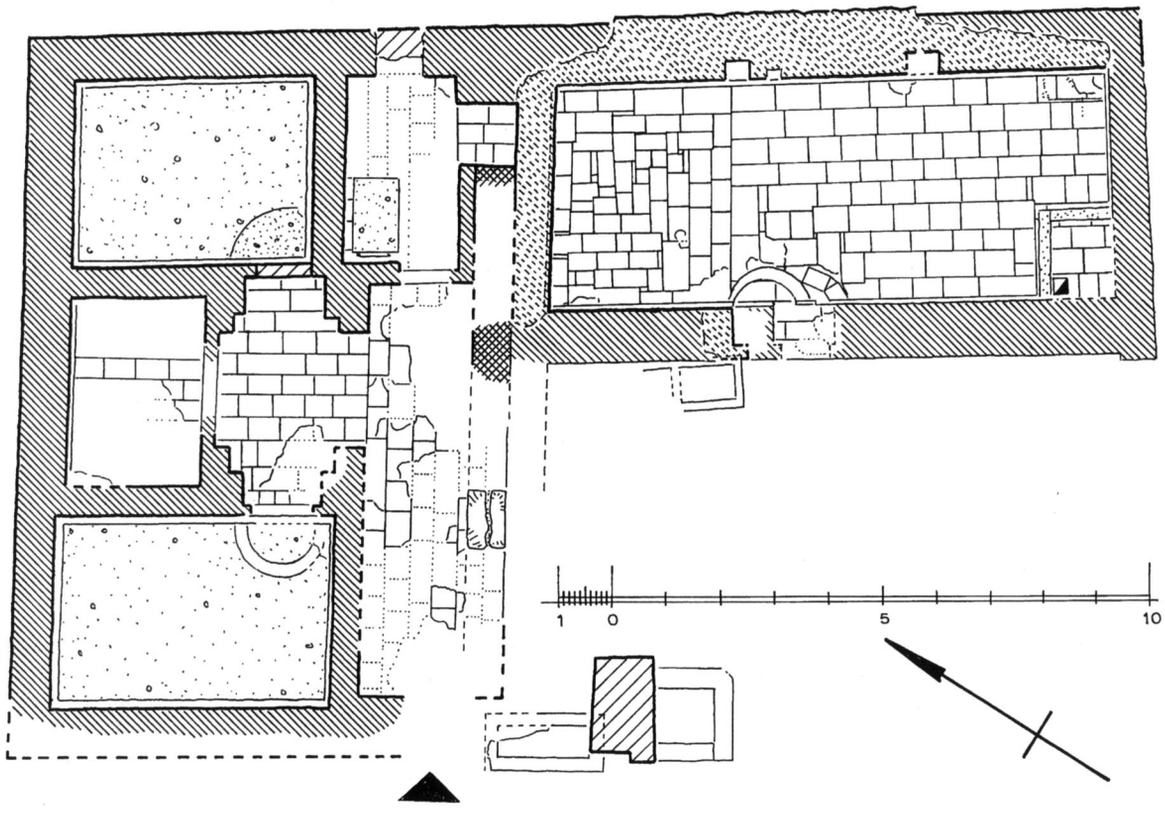

FIG. 26 The L-shaped building complex to the west of the eastern monk house

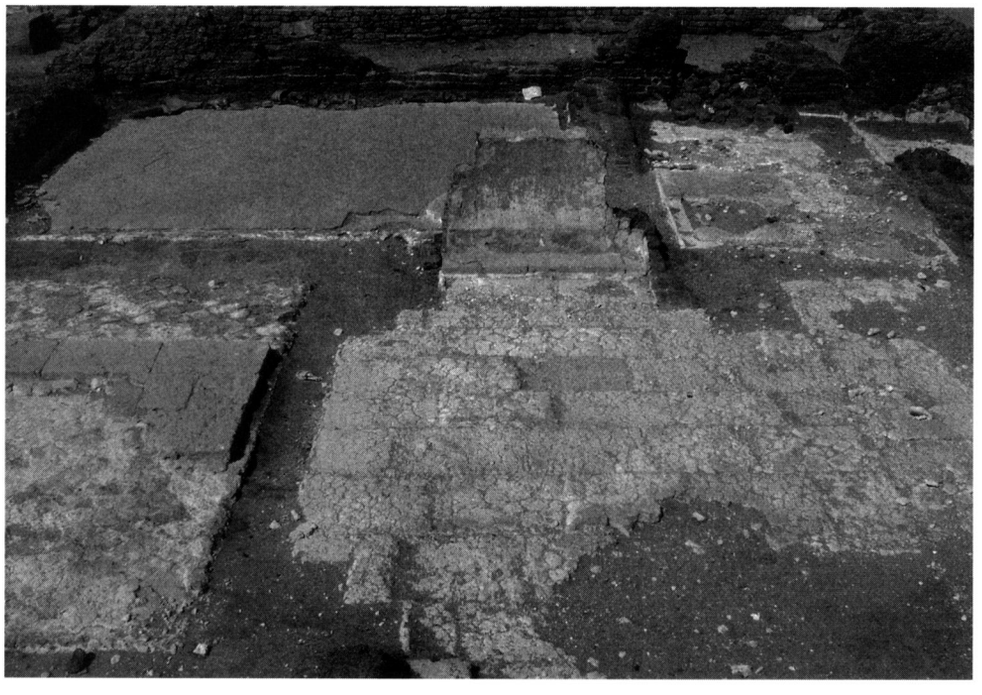

FIG. 27 General view of the northern part of the L-shaped building complex (looking east)

mortar up to a height of ca. 1 m. Both rooms are paved with an ordinary *opus signinum* plaster, which was renewed several times, as can be seen from the several layers of plaster, noticeable especially in the western chamber. In addition, the floor sections in both rooms just behind the doors show an unusual kind of treatment. In the western room, the floor plaster is interrupted just behind the door by a semicircular structure of fired bricks. It was constructed above the earlier floors and seems to have been raised by at least one step (two or three layers of bricks) above the general floor level. It seems that in this room something meant to be kept away from the door was stored. In the eastern room the present top layer of the floor has a curious change in the color of the floor plaster from pink to yellow along a curved line. This change in color may indicate that the flooring was laid on different occasions and that a similar semicircular structure was once extant also in this room behind the door, but was later removed. In neither chamber, however, do the earlier floors show any similar installations or changes in the floor plaster.

At the eastern end of the corridor, another room with some unusual features is located on the south side. It has a strange rectangular extension, probably the result of the first pillared wall at this position. The narrow door in the eastern wall was walled up at a later date and is not original. Also unusual is the flooring of this room, which shows mainly traces of a pavement of limestone slabs covering an earlier plastered floor. In the northwestern sector, however, is a rectangular field, measuring 0.85 by 1.38 m, which was filled with pink plaster, surrounded on all sides (because it does not abut the wall to the north and west) by limestone slabs as in the rest of the chamber.

The structure built to the south, against the eastern part of the surviving remains of the early wall, has a much more complicated building history. It is a large, relatively narrow, north-south–oriented chamber measuring 10.3–10.6 by 4.20 m and was constructed about the same time as the northern addition (or slightly later or earlier). Its floor level was raised several times. The two longer walls on the east and west sides are very thick, probably to support a barrel vault once constructed over the chamber. The other walls are of normal sizes. All the walls were of mud-brick masonry.

Apparently from the beginning the room was entered from the west. The lower edge of the northern doorjamb of this original entrance is still in evidence with traces of the outer doorpost (fig. 26). The walls were all plastered with soft *opus signinum*, but we were unable to expose traces of the original floor, probably made of simple plaster laid upon a bed of mud bricks. During the next stage, the function of the room changed drastically. All the surrounding walls received a kind of solid encasement of thin (0.08 m), vertically placed limestone slabs erected upon a carefully leveled course of fired bricks bonded in lime mortar, as could be observed in two test trenches at the northwestern and southeastern corners. The floor extant with this encasement was made of two layers of fired bricks laid also in lime mortar except for two areas: the threshold of the western entrance, including a small attached semicircular part of the interior of the room,[45] and in a square field in the southwest corner (fig. 29), both of which received a pavement of limestone slabs at the same level as the brick pavement in the rest of the room. Both areas were also delimited from the rest of the room by tiny, thin (0.25 m) and apparently low walls built of fired bricks similar to those observed behind the door in the above-mentioned western room of the northern section of the building. In addition, the small rectangular area in the southwest corner was provided with a medium-sized ceramic vessel sunk about 0.50 m deep into the ground at the west end of the above-mentioned northern tiny brick wall (fig. 29). Without any doubt this vessel served to collect the apparently valuable liquid leaking out from the main part of the chamber. Thus a small pipe passing through that bordering wall, like the pipe that remains from the later period, must also have been installed at this spot during the earlier period. To protect the contents of the vessel from dirt, the floor slab above it was stepped to create a ledge whereon a smaller stone or a wooden cover could have been placed.

It seems, however, that the above-mentioned brick flooring was not found sufficiently resistant to the apparently rather aggressive material which was collected in this room. The brick floor was soon covered by a thick, stone pavement, laid carefully in lime mortar and covered with a layer of *opus signinum*. Only the two already paved areas at the western entrance

45 Because this semicircular structure gave it the appearance of an apse, the area to the west of this was at first understood as a prayer hall, a theory which must now be abandoned.

FIG. 28 Western entrance niche of the southern part of the L-shaped building complex

FIG. 29 Southeast corner of the L-shaped building complex with ceramic vessel sunk into the ground

and in the southwest corner remained unchanged. Consequently, for subsequent use of the above-mentioned ceramic vessel in the ground, a new pipe—now of lead—was drawn through the narrow bordering brick wall at a slightly higher position, corresponding to the higher level of the new floor. To judge from the considerable erosion of all the slabs of the wall encasement and of the floor in the square area in the southwest corner, the structure remained in this state for a long period. Perhaps dry olives or some other acidic material such as pickled, salty fish (as proposed in personal discussion by Friederike von Bargen and

Hans-Georg Severin), which could corrode the stone, were stored in this room, while oil, which may have occasionally leaked out, was collected in the ceramic vessel in the southwest corner area. It appears most likely that the described installation served for the production of *garum* (Latin *liquamen*), a fish sauce used as seasoning for many kinds of foodstuffs. It is mentioned by Apicius on various occasions in his *De re coquinaria*.[46] According to ancient descriptions (Pliny, *Nat. hist.* 31.93–97, *Geoponica* 20.46)[47] it was made of preferably small, salted fishes, kept together for several months at a certain temperature until they putrefied and released a kind of liquid, which was filtered and later mixed with water and certain herbs to be cooked into a tasty sauce.[48] The production process caused a very bad smell (Pliny, *Nat. hist.* 31.87; Martial, *Epigr.* 6.93.6), which might explain the unusual thickness of the surrounding walls of the chamber. They were probably built up to a greater height than usual to keep this smell from escaping to the surrounding area. At first glance it is somewhat surprising to find an installation for the production of such a luxury product in a monastic context, because in such circles abstinence from this sauce was usually stipulated.[49] For sick monks, however, the consumption of *garum* was permitted.[50] According to Pliny (*Nat. hist.* 31.96–97) and other classical authors it also has some medical value as a stimulant for the appetite and for digestion.[51] The monastery may also have produced *garum* to sell to outside customers.

The only change after the last pavement was laid was carried out in the area in front of the inner side of the western door, which received an inner step of 0.33 m width (similar to the semicircular installation at the door of the western chamber of the northern part of the building), combined with a rise of its floor level by one layer of fired bricks.

The final alteration of the building involved some major repairs to the south room. The floor was again raised to approximately the upper edge of the stone encasement along the walls, combined with the creation of a steeper descending slope to the south. This was achieved by underlaying the new floor slabs at the northern end with two and at the southern end with only one layer of fired bricks laid in lime mortar.[52] The inclination was then 1.03%. Also a new encasement was built above the earlier one, made this time of fired brick; its new position was simply cut into the mud-brick masonry of the walls. On the east side, some wall niches were inserted into this new incrustation. At the same time the western door was moved slightly to the north and the small half-rounded area inside the room was given a thin, new protection wall of 0.24 m (fig. 28).

Remains of the roofing for this room do not survive. If we take into consideration the thickness of the eastern and western walls, the roof might have consisted of a barrel vault of bricks running north-south.

I.2.3. BUILDING REMAINS TO THE NORTHWEST OF THE EASTERN MONK HOUSE

Another interesting but, unfortunately, destroyed complex lies to the northwest of the eastern monk house (fig. 2). It appears to be even earlier than the latter building and is composed of several different units, not all of which are contemporary. The westernmost unit is a small rectangular chamber built of crude mud bricks with an inner, rather worn, pavement of thin, sawn limestone slabs evidencing many repairs (fig. 30). The entrance was at the south end of the east wall. Later, the north wall was broken to provide a secondary doorway.

46 *De re coquinaria* 42, 76, 125, 146f., 149, 151, 181; and in special prescriptions, ibid. 183, 185, 187, 193ff., 201ff., 205, 211, 226, 243, 263, 265, 269, 297, 326f., 329, 368, 379.

47 Quoted after T. Zahn in *RE* 7.1 (1912), 843.

48 On the production and use of this fish sauce, see J. Marquardt, *Das Privatleben der Römer*, 2 vols. (Leipzig, 1886, repr. Darmstadt, 1975), 2:438ff., and I. König, *Vita Romana, vom täglichen Leben im alten Rom* (Darmstadt, 2004), 94. Very informative with rich bibliography are T. Zahn, in *RE* 7.1 (1912), 841–49 s.v. *garum*; W. H. Groß in *Der Kleine Pauly* (Munich, 1975), 2:700–701 s.v. *garum*; S. Clackson, "Something Fishy in *CPR* XX," *Archiv für Papyrusforschung* 45 (1999): 94–95; and W. Van Neer et al., "Salted Fish Products from the Coptic Monastery at Bawit, Egypt," in *The Role of Fish in Ancient Times*, ed. H. H. Plogmann (Rahden/Westf., 2007), 147–59.

49 Hieronymus, *Reg. Pachom., Praecepta* 45, 46, and 54, cf. H. Bacht, *Das Vermächtnis des Ursprungs*, vol. 2, *Pachomius: Der Mann und sein Werk* (Würzburg, 1983), 91ff.

50 Hieronymus, *Reg. Pachom., Praecepta* 45 and 46.

51 References at *RE* 7.1:845.

52 The level of the earlier pavement had practically no inclination.

FIG. 30 Room to the west of the underground cooling chamber

Since the south wall of this chamber continues further to the east, the entrance at the south end of the east wall must have been only an interior door within a larger building complex.

Roughly in the center of this room is a small fireplace, inserted later. It was sunk into the pavement and surrounded with fired bricks. In the southwestern corner of the room is a square depression in the floor of ca. 0.60 m, faced on all sides with masonry of fired bricks bonded in mud mortar.

It seems that this chamber should be understood as connected with the traces of some concrete flooring further to the east, beyond the underground cooling chamber, described in our earlier report (figs. 31–32).[53] One should not be perplexed by the fact that the rooms on this side have a different kind of flooring. Traces of the southern edge of a concrete floor run roughly in the same direction as the south wall of the above-mentioned chamber and could thus belong to the same construction. Apparently these remains of concrete floors belong to different chambers. Also traces of the positions of columns are in evidence.

Further to the north, foundations for a row of columns or pillars are traceable running roughly east-west. Where this colonnade ended to the east is not clear. We suggest that it was a portico running along an inner

53 See Grossmann et al., "Excavation," 378f. fig. D.

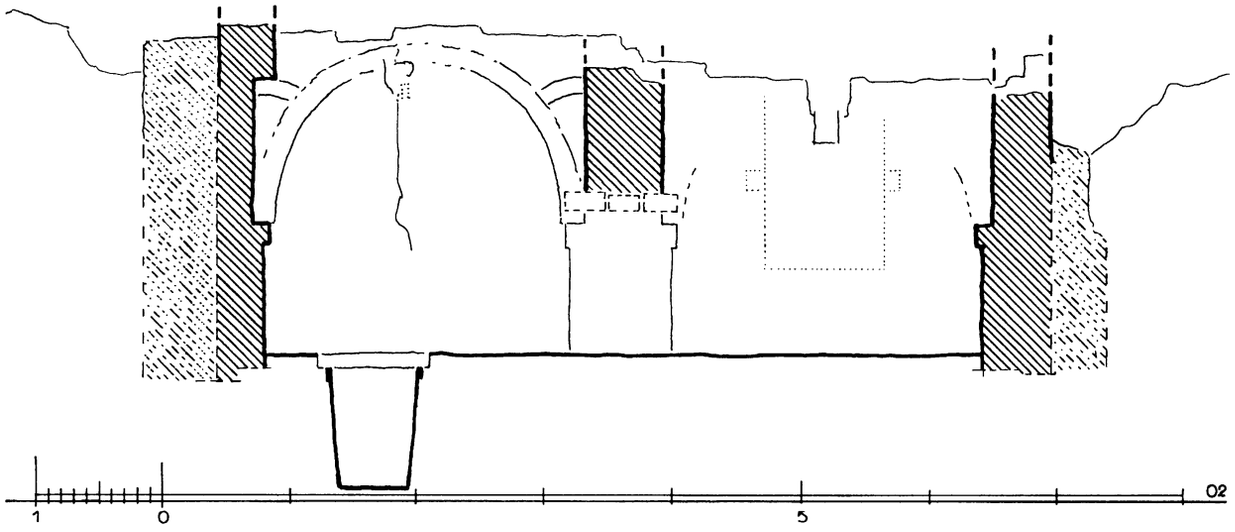

FIG. 31 Transverse section through the underground cooling chamber (looking west)

court of the building (in the center of which lies the underground cooling chamber).

Remains of a western outer entrance to this building survive to the north of the previously mentioned rectangular chamber with the limestone pavement. The wall belonging to this entrance is built of fired bricks and dates to a later period, but obviously replaces an earlier structure. Unfortunately only a rather short section survives. The door proper is of very good quality. A large granite slab apparently reused from an earlier pharaonic structure serves as a threshold. In front of this entrance is the usual catchment pit with rounded interior corners. It shows several layers of inner plaster and seems to have been regularly filled with water and often replastered.

Concerning the underground cooling chamber in the center of the assumed court, a few additional observations were made (figs. 31–33). By cleaning the floor of this chamber the correct depth of the large ceramic vessel in the southwest corner of the second chamber could be measured as 1.05 m below floor level (fig. 34). The vessel has on the inner side of its upper part a simple painted decoration with a sequence of white upright curved lines. On top the space is slightly widened to insert a probably wooden cover when access was not needed. The floor of both chambers consists of simple plaster upon a layer of fired bricks. A rectangular hole (0.05 by 0.12 m and 0.22 m deep) located high up in the wall on the smaller east side of the southern chamber (a corresponding hole on the west side is not visible) indicates that at some point a wooden beam was fixed slightly below the apex of the vault (indicated by a dashed line in fig. 32), probably providing a place to hang bags of foodstuffs, as was customary in antiquity to prevent insects and other small vermin from gaining access to them.[54]

Quite curious are the different thicknesses of the lateral walls of the underground structure, for which a technical reason cannot be given. It is doubtful whether the walls were visible above ground. Probably the especially thin southern wall had to follow the alignment of other walls further to the east and west and to avoid a possible conflict with the northern entrance into the eastern monk house. Its close connection with the catchment pit of the northern door of the latter indicates that the underground structure did not have a story above ground level. One could easily walk on top of it to reach the entrance to the monk house. The lintel of the door between the two chambers was constructed of wooden beams and apparently plastered from below. The free height of the door is very low, at 1.12 m.

54 Cf. U. Hölscher, *The Excavation of Medinet Habu*, vol. 5, *Post-Ramessid Remains* (Chicago, 1954), 47.

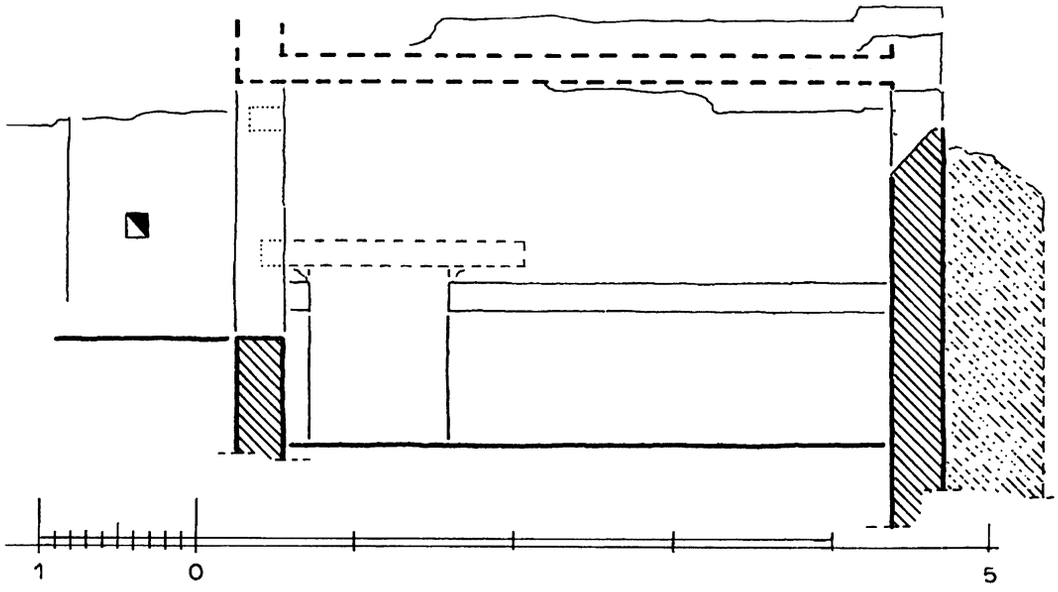

FIG. 32 Longitudinal section through the northern underground cellar chamber (looking south)

FIG. 33 The underground cooling chambers

FIG. 34 Vat in the southern room of the underground cooling chamber

I.2.4. THE VATS IN THE COURT TO THE EAST OF THE MAIN CENTRAL SQUARE

In the roughly L-shaped court on the eastern side of the main square of the monastery, just to the west of the area with the irregular ciborium over the square basin, described in our earlier report,[55] are some very unusual vats, which are sunk slightly into the ground. The vats demand a more detailed description although their function is not yet fully understood. They are five in number, three of which (nos. 1–3) were later rebuilt and changed.

a. The original vats: All five vats originally had the same shape (fig. 35), differing only in orientation and slightly in size. While vats 1, 2, and 4 are oriented east-west, vats 3 and 5 are oriented north-south. It is unclear whether this differentiation is meaningful. All the vats were well constructed and everywhere carefully plastered (fig. 36). They were composed of a rectangular platform measuring ca. 3.00–3.15 by 2.10–2.35 m, sunk into the ground and framed with low bordering walls, apparently raised slightly above the ground. These walls were ca. 0.25 m thick, which corresponds to the length of one brick, and are slanted at the two corners of one of the smaller sides so that these sides come to rough pointed ends. On the opposite side, the surrounding wall is not straight but has in the center a rectangular extension. In the middle of these vats is a flat, narrow, channel-like depression, which extends nearly the whole length of the interior. It is not clear whether water was kept in this so-called channel; at least nothing suggests the existence of a drain. In addition, in vat no. 4 six (three on each side) roughly squared blocks of limestone were inserted into the banks on both sides of the channel. Similar stones apparently also existed in vat 5, but here the surface of the banks beside the channel was totally destroyed. In vat 3, below the later addition, such a stone is still in position and can be seen from the side (fig. 37). It appears also that this stone was carefully squared, which originally may have been true also of the stones in vat 4. They could have been used thus as seats. Nevertheless the purpose of these installations remains unknown.

b. The later changes in vats 1 to 3: During a later period vats 1 to 3 were each overbuilt by a completely

55 Grossmann et al., "Excavation," 372.

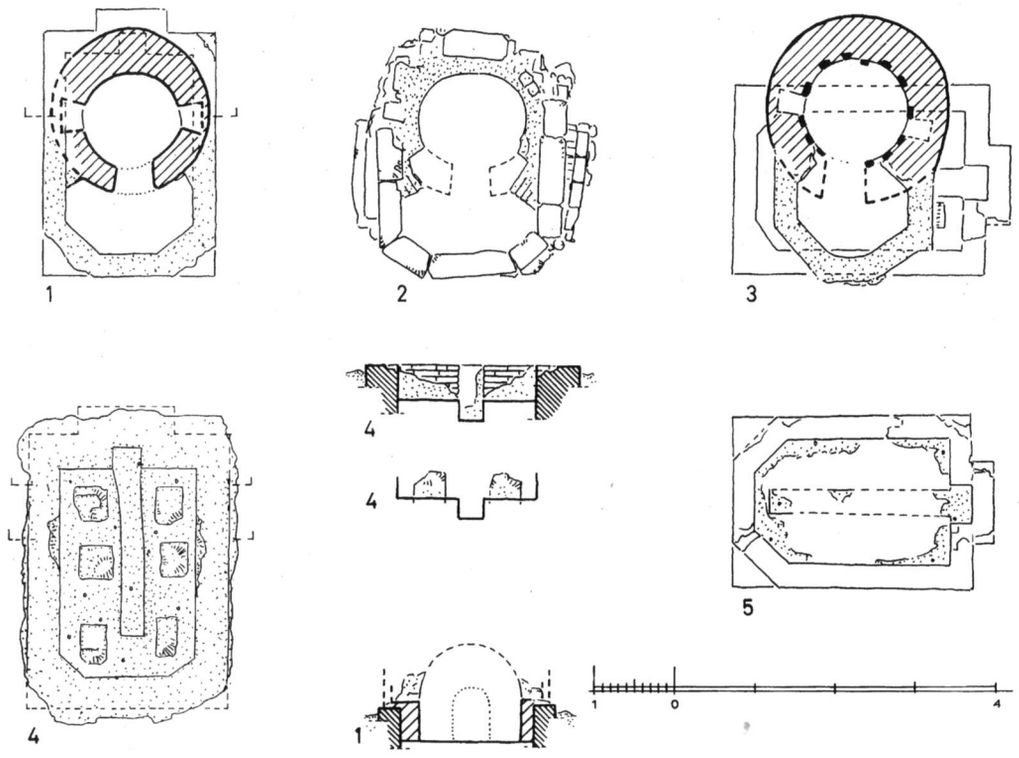

FIG. 35 Vats in the court to the east of the central square

FIG. 36 Rectangular vat 4 in the court to the east of the central square, with six inner socles.

FIG. 37 Vat 3 (view from the north) showing on the left the remains of one socle of the original phase below the second-phase brick structure.

FIG. 38 Rebuilt vat 1 in the court to the east of the central square

FIG. 39 Floor section of the rebuilt vat 3 with traces of the inner facing with wooden posts

different installation (figs. 38–39), clearly indicating a change in the original function. Just like the original structures, these new installations were in all three cases more or less similar in shape. They are composed of two different parts: (1) a very small, perfectly circular, and perhaps originally domed chamber (inner diameter ca. 1.35 m, height approximately 1.30 m) on the west with two small interior niches to the sides (traces are visible in vats 1 and 3) and (2) a very low (ca. 0.75 m high), probably arched entrance opening in the east, in front of which is extant an irregular octagonal unit with thinner walls, attached against the circular unit. The octagonal units probably served as entrance areas and were not roofed.

Whether people were supposed to enter the circular unit (at least under certain circumstances) is not clear, since the space does not allow one to stand upright. Small animals, however, could stand inside. The structure in vat 1 shows clear traces of the beginning of a vault. On the other hand, the inner surface of the circular unit of vat 3, where the side walls are less well preserved, shows a regular alternation of bricks and traces of vertical thick wooden posts (fig. 39). Whether this only marks a different construction method or signals that the vats were put to a different purpose is also uncertain.[56]

56 In a broader sense these structures in vats 1 to 3 are similar to the curious installations in the naoi of the two churches B and C in Tebtynis (Fayyum); see P. Grossmann, "The Early Christian Churches of Tebtynis as Discovered by the Italian Mission in 1930–1933," in *Christianity and Monasticism in the Fayoum Oasis: Essays from the 2004 International Symposium of the Saint Mark Foundation*, ed. G. Gabra (Cairo–New York, 2005), 197–208, esp. 303ff. figs. 17.3b and 17.4.

I.3. *Newly Excavated Buildings*

For the two newly excavated structures below, no plans are available.

I.3.1. THE FAR NORTHERN MONK HOUSE

The third monk house, situated in the northern area of the monastery, is more simply built than the other two and was constructed entirely of sun-dried mud bricks.[57] It was erected after destruction by fire and may date to the time after the Persian invasion of AD 619, an event which might have caused the destruction. The soil beneath several walls consists of a thick, red layer of broken, originally crude bricks. Some earlier brick walls below the present ones are entirely red.

The entrance into the building, which does not survive, lay apparently on the east side of the building, at the end of a narrow, corridor-like room running east-west. After a few meters this corridor turns to the north and later once again to the west. The last section of the northward running corridor is presently separated from the western branch by a thin partition wall, which left only a small door for communication. The remaining space of this corridor up to the end is occupied by a staircase added at a later date, leading probably up to a second story that was also a later addition.

Several long chambers are distributed to the sides of this Z-shaped corridor. They are of roughly similar proportions as the sleeping chambers in the two southern monk houses (supra I.1.1–I.1.2). Entrances into these rooms survive only in two cases, demonstrating that these rooms and probably the others as well were accessible at their smaller ends from the inner corridor.

Further to the north is situated a large pottery kiln.

I.3.2. THE TOMB CHAPEL BEYOND THE WESTERN GIRDLE WALL OF THE MONASTERY

In spring 2003, just beyond the outer western wall of the monastery, described above (I.2.1), the SCA excavated a small, but richly decorated, chapel with numerous fragments of painted plaster scattered in the debris. The chapel has a basilica-like ground plan with a narrow central nave, separated from the aisles and the western return aisle by rectangular and L-shaped pillars, which were obviously once linked by arches. The triconch shape of the sanctuary resembles that of the large fifth-century church of the monastery, and was doubtless influenced by the latter, with the eastern conch slightly deeper than the other two. Below the central unit of the triconch is a richly decorated tomb chamber, accessible from a little shaft in the middle of the nave.

The two sidewalls of the chapel are executed very differently. The north wall is of normal thickness with a series of similarly shaped narrow compartments (probably tomb chambers) built against the exterior. The very broad south wall bears an interior stairway, which apparently led up to the roof. In a section of this wall further to the west, preserved to a greater height, a small *aedicula*-niche survives facing the side of the chapel. Since such niches are consonant with the usual design of early Christian churches in Egypt,[58] similar niches were probably also distributed at other positions in the lateral walls of the chapel. At two places the south wall is interrupted by doors leading to a peristyle-like area to the south.

The sanctuary of the chapel was executed as in a regularly used church. The whole area of the triconch represents the presbytery. Traces of the position of screens are visible on the surviving southern lateral pilaster of the triumphal arch at the entrance into the triconch and on a second one below the frontal arch of the eastern conch. The altar should have been located roughly in the middle of the square central area of the triconch and thus directly above the underground tomb chamber, but no traces survive.

The underground tomb, located beneath the putative position of the altar, consists of a narrow entrance shaft with a sloping, barrel-vaulted extension to the east, a small domed antechamber (with a hanging dome) with two rectangular niches on two sides, and a barrel-vaulted tomb chamber. The entrance shaft was, as in other examples, covered with wooden planks. For the descent it has an interestingly arranged space-saving pseudo-spiral stairway winding clockwise downward around the two free sides of the uppermost step situated in the

57 The SCA did not permit measurements for a plan of this building.

58 Cf. Grossmann, *Christliche Architektur* (n. 8 above), 184ff.

southwestern corner of the entrance shaft.[59] All the steps are rather high (ca. 0.40 m) except for the lowest one, which has a height of only 0.22 m. A narrow opening on the west side inclines upward, extending to the floor of the chapel, and probably served as a kind of window for air circulation. The wall separating the domed antechamber from the final tomb chamber contains a window-like opening in the middle to accommodate the transfer of the deceased into the tomb chamber; afterward it could be closed with a large and thick flagstone of corresponding size. For the correct fixing of this flagstone, the opening was provided with small, lateral grooves at the lower and upper edges, where pieces of wood could apparently be inserted to hold the stone in place. When one wished to put other bodies into the tomb chamber, this window could be easily reopened.

The existence of this tomb below the sanctuary qualifies the building as a tomb chapel, examples of which are known from other cemeteries.[60] Because of its position outside the area of the monastery and the richness of its architectural execution and decoration, it probably does not belong to the monastery, but was perhaps built by a wealthy individual from the region, probably from Panopolis, who desired to be buried in the blessed neighborhood of Shenute's monastery.

To the south of the chapel is an oblong central space (probably a court) surrounded on three sides with porticoes supported by irregularly distributed square, L-, and T-shaped pillars. Apparently at first only an eastern portico with square pillars was planned, as can be seen from the southernmost pillar of this row, which later received two additional buttresses at its eastern and western sides so as to serve as a corner pillar for the combination with the southern colonnade. The T-shaped pillars of the southern portico have corresponding buttresses along the north side, with which they were probably linked by arches, thus dividing the court-like central area into different sections. From the individual execution of the doors and the location of the doorposts, it appears that the eastern door, corresponding in its position roughly with the center of the chapel's nave, was the chapel's entrance, while the door at the western end represents the exit from the church. The stairway in the south wall of the chapel, mentioned above, is also accessible from the passageway of the eastern door. Further to the south are situated several irregularly shaped units, among which is also located the general entrance into the building complex.

The function of the southern area with the little court surrounded by some sort of roofed porticoes is not fully clear. It may have served as the place where regular memorial meetings, including the celebration of the memorial meals (*refrigeria*), were held on the *dies natalis* of the deceased and on other occasions during the year.

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59 This structure is discussed in detail in E. S. Bolman, S. J. Davis, and G. Pyke, "Shenoute and a Recently Discovered Tomb Chapel at the White Monastery," *JEChrSt* 18, no. 3 (2010): 453–62.

60 Fine examples were discovered by W. M. F. Petrie in Oxyrhynchos; cf. his *Tombs of the Courtiers and Oxyrhynkhos* (London, 1925), 16–17 pl. 41; see also Grossmann, *Christliche Architektur*, 337–39 fig. 61.

FIG. 40
Late Byzantine amphorae forms

II. Surface Pottery Survey: 2003

DARLENE L. BROOKS HEDSTROM

The pottery scattered on the grounds of the monastery of Apa Shenute reflects the periods of occupation known to us from the literary sources about this late antique community, which was established in the fifth century and continued to function until its abandonment, in the fifteenth century, with only the church remaining, as recorded in al-Maqrizi.[61] Our concession for work at the site in 2003 included documentation only of those areas previously excavated by the SCA; therefore, the pottery study included a review of surface scatter in select areas and the pottery in the spoil heaps from the excavation directly west of the church.[62]

The most common wares found in the walking survey included examples of red and brown Nile-silt bodies, in particular, a LR7 amphorae with a chocolate body (fig. 40).[63] The diagnostic shards include parallels to amphorae from other Byzantine sites such as Alexandria, Kellia, Naqlun, el-Ashmunein, Antinoë, Thebes, and Esna, dating from the fifth to seventh centuries.[64] In addition to the surface finds, several large storage jars are built into the walls of various structures on site. Hand-built storage jars were used in the construction of walls to the south of the four-pillar building

61 See "Khitat of Al-Maqarizi," appendix in Abu Salih the Armenian, *The Churches and Monasteries of Egypt and Some Neighbouring Countries*, trans. B. T. A. Evetts (Oxford, 1969), 317 no. 57.

62 The pottery on the surface is heavily disturbed due to the years of excavation activity. The comments in this report are intended to document what is visible with the hopes that future stratigraphic work at the site will yield reliable ceramic data for the site's history. Some areas are particularly promising for future work, such as the northern region of the site, beyond the large SCA spoil heaps, where a kiln was discovered. No ceramic evidence was left in situ for examination or cursory review.

63 The survey was based upon a grid with observations every two meters across the exposed areas and the unexcavated perimeter.

64 P. Ballet has identified evidence for local production of these amphorae at Antinoupolis, Hermopolis, and Zawyet el-Maietin; eadem et al., "Artisanat de la céramique dans l'Egypte romaine tardive et byzantine: Prospections d'ateliers de potiers de Minia à Assouan," *Cahiers de la Céramique Egyptienne* 2 (1991): 129–43. For parallels see G. Majcherek, "The Late Roman Ceramics from Sector G (Alexandria 1986–1987)," *Études et travaux* 16 (1992): 105, nos. 58–59; M. Egloff, *Kellia*, vol. 3, *La poterie copte*, 2 vols. (Geneva, 1977), Kellia types 173–78; W. Godlewski, "Coptic Pottery from Deir el Naqlun (Fayum)," in *Coptic and Nubian Pottery* (Warsaw, 1990) 1:50–51, figs. 20–23; A. J. Spencer and D. M. Bailey, *Excavations at el-Ashmunein*, 5 vols. (London, 1983–98), 5:16–20, figs. 4–5; M. C. Guidotti and L. Pesi, *La ceramica da Antinoe nell'Istituto Papirologico "G. Vitelli"* (Florence, 2004), 33, nos. 58–59; H. E. Winlock and W. E. Crum, *The Monastery of Epiphanius* (New York, 1926), 1:79–82, pl. XXVIII; and H. Jacquet-Gordon, *Les ermitages chrétiens du desert d'Esna* (Cairo, 1972), vol. 3, forms P3 and P4.

FIG. 41 Coptic painted ware: fine wares

on the west side of the north-south street (fig. 1). Eleven vessels are extant in the northern wall and three are partially preserved in a southern wall. The vessels are made of chaffy Nile-silt clay with a red slip on the exterior and have a rolled, inverted rim with a flat base. Traces of yellow-slipped dot-and-swirl patterns are still visible on some of these vessels. They are preserved to a height between 60–80 cm and bear evidence of several interior plasterings, probably for waterproofing. The walls that encase these vessels had a niche inset where the vessel interrupted the wall of plastered mud bricks. Repairs to the walls were later made with fired bricks and the openings to the storage vessels were maintained.[65]

Recognizable forms from the late Roman period include a few shards of African red slip wares; the majority of fine wares are Egyptian red slip wares, including examples of stamped bowls and, more commonly, plain, flared-rim plates of Aswan fine ware.[66] The Coptic painted wares represent a broad range of skill and craftsmanship. The forms include coarse wares and fine, Aswan forms that are imitations of Egyptian red slip wares (fig. 41).[67] Geometric forms made with red, yellow, white, and orange slips decorate the body of pitchers, bowls, and small plates. The examples collected match well in both form and decoration with

65 The inclusion of ceramic vessels in the walls of monastic residences is ubiquitous at the Kellia dwellings; see M. I. Cattin, *La vase et l'architecture: Intégration de la céramique dans les bâtiments coptes des Kellia (Basse-Égypte)* (Neuchâtel, 1986). A similar practice is evident also at the *manshubiyat* (Arabic, pl. monastic dwellings) in Wadi Natrun. However, in these cases, the vessels are used for storage or acoustics and did not bear evidence of plastering.

66 The dating of the Egyptian red slip wares is admittedly difficult and bears the same broad span of dates as the late Roman amphorae. For comparable pieces see D. Bailey, "The Pottery from the South Church at el-Ashmunein," *Cahiers de la céramique égyptienne* 4 (1996): 54–63; S. McNally and I. D. Schrunk, *Excavations in Akhmim, Egypt* (Oxford, 1993), 77–79.

67 See M. Rodziewicz, "On the Origin of the Coptic Painted Pottery in Kharga Oasis," in *Mélanges Gamal Eddin Mokhtar* (Cairo, 1985), 235–42.

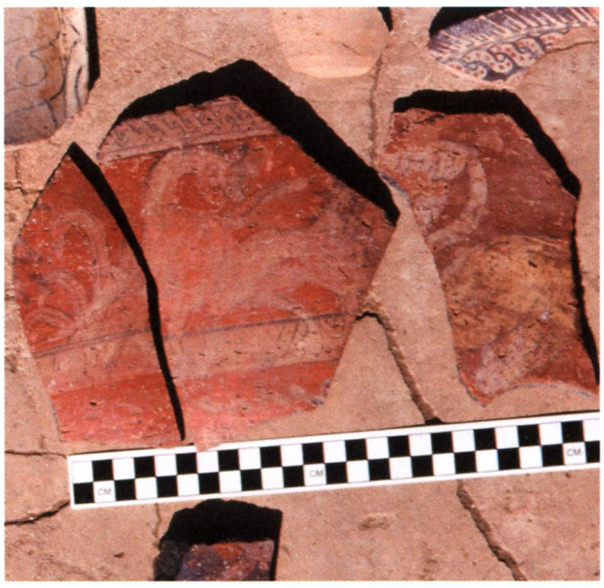

FIG. 42 Animal form on body shards of Coptic painted ware

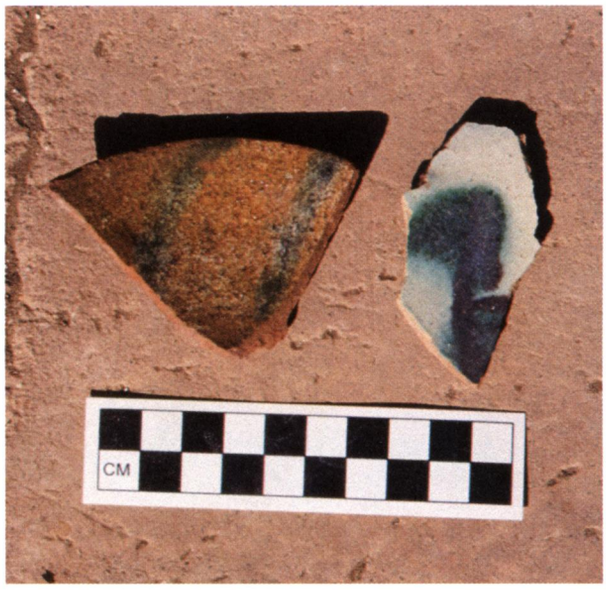

FIG. 43 Coptic glaze on an Aswan form (left); Fayyumi fragment with black and blue splash (right).

monastic assemblages from Kellia, el-Ashmunein, Antinoë, Tell Atrib, Tod, and Esna.[68] A few samples illustrated nonfigural designs that were well executed with the frequently used faunal, floral, and geometric patterns of fish, birds, hatched cypress trees, twirled braids, swirls, and dots. One unique fragment shows the hindquarters of an animal, possibly a camel or a mythological creature, and others have male figural representations (fig. 42). All these shards are reflective of the late antique period and date broadly to the sixth and seventh centuries.

The surface shards also include samples of two diagnostic early glaze-ware forms that appear at several Byzantine and Islamic sites in Egypt: Coptic glaze ware and Fayyumi ware (fig. 43). Coptic glaze ware was first recognized as a distinctively Egyptian product in archaeological levels at Kom el-Dikka and dates to the eighth century.[69] However, it does not appear to be a product of Alexandrian potters.[70] The body forms are from Aswan and represent a transition from an imitation Egyptian slipped ware to a ware that was then covered with a clear glaze. The forms include frequently thin bodies, with sandy inclusions, and have splashed colors of brown, green, and yellow on a pink body.

68 A detailed catalogue of Coptic painted wares is provided in Guidotti and Pesi, *Ceramica da Antinoe*, 53–151, nos. 82–465; T. Górecki, "Coptic Painted Amphorae from Tell Atrib," in *Coptic and Nubian Pottery*, 1:34–48, type 4 for amphorae parallels; pattern catalogue in Egloff, *Poterie copte*, plates 64–85. The Coptic painted ware at Kellia has a smaller repertoire of patterns than what is found at Tell Atrib, Antinoë, or Suhag. For the decorative examples see Jacquet-Gordon, *Ermitages chrétiens* , 17–20; Spencer and Bailey, *Ashmunein*; G. Pierrat, "Évolution de la céramique de Tod," *Cahiers de la céramique égyptienne* 4 (1996): 195–96; figs. 51–52.

69 See D. Whitcomb, "Coptic Glazed Ceramics from the Excavations at Aqaba, Jordan," *JARCE* 26 (1989): 167–82; idem, "Glazed Ceramics of the Abbasid Period from the Aqaba Excavations," *Transactions of the Oriental Ceramic Society 1990–1991* (1992): 43–65. Whitcomb has followed M. Rodziewicz, who has argued that the use of Aswan pink clay began as early as the late Ptolemaic period: "Field Notes from Elephantine on the Early Aswan Pink Clay Pottery," *Cahiers de la céramique égyptienne* 3 (1992): 103–8 and idem, *Alexandrie*, vol. 1, *La céramique romaine tardive d'Alexandrie* (Warsaw, 1976) and "La céramique émaillée copte de Kom el-Dikka," *Études et travaux* 10 (1978): plate V.9. Examples are also present at Wadi Natrun, see D. Brooks Hedstrom, "Tableware and Monastic Practice 700–1400: New Questions from the Ceramic Corpus at John the Little's Monastery," in *Living for Eternity*, ed. P. Sellew (forthcoming).

70 R. B. Mason, "Medieval Egyptian Lustre-painted and Associated Wares: Typology in a Multidisciplinary Study," *JARCE* 34 (1997): 201–42; idem and E. J. Keall, "Petrography of Islamic Pottery from Fustat," *JARCE* 27 (1990): 165–84.

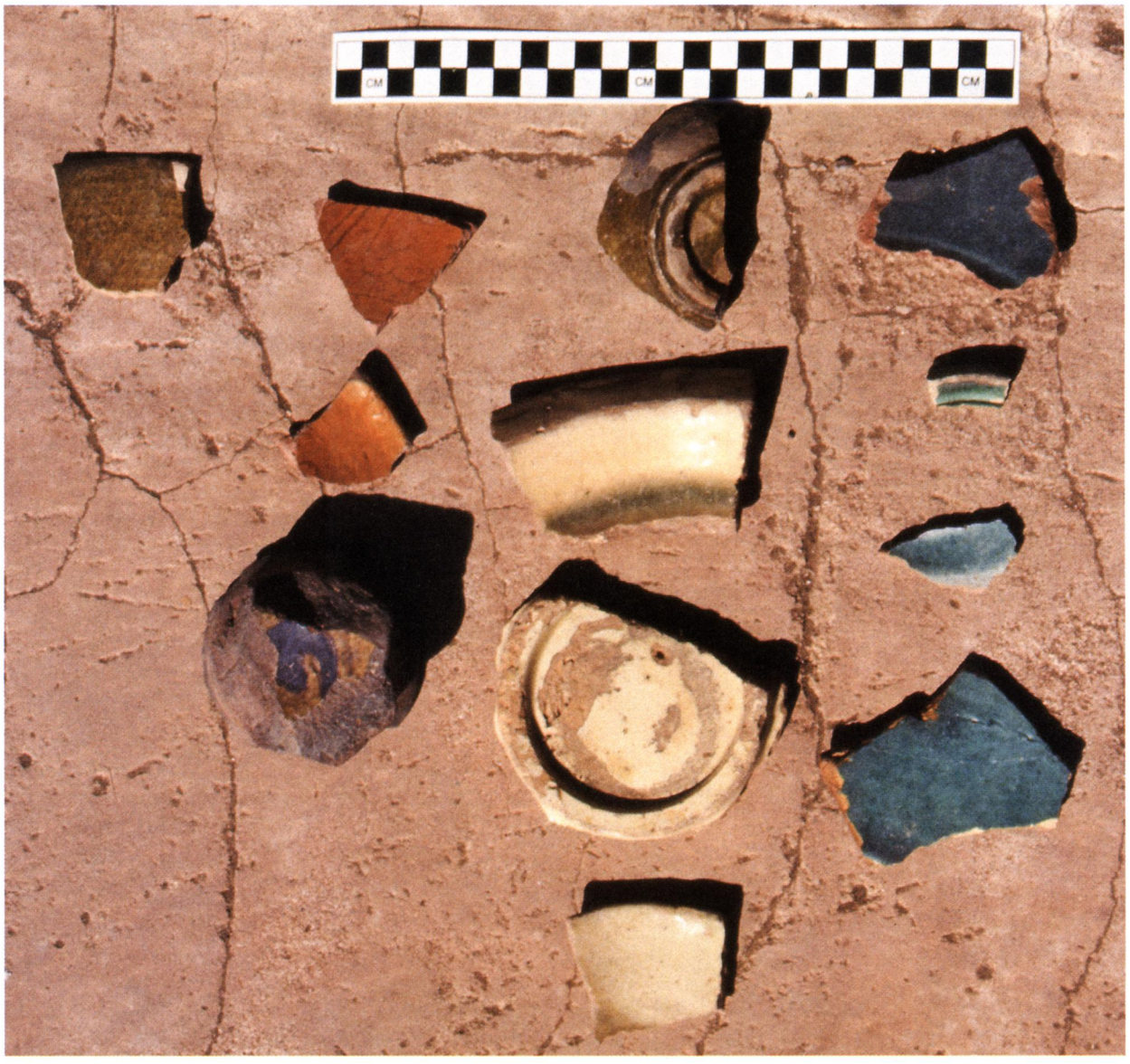

FIG. 44 Surface samples of Ayyubid and Mamluk glaze wares

Conversely, Fayyumi ware, which was not produced in the Fayyum, was used for several centuries, beginning in the eighth and lasting into the late tenth century.[71] Fayyumi ware has been called *splash ware* because of the distinctive pattern of applied glaze that is splashed on and also because the application of glaze imitates Chinese T'ang Dynasty ceramics which were colored with splashes of orange and green glaze.[72] In China the clay differs significantly from the Egyptian examples, but the application of colored glaze, such as orange, green, and yellow, to a clay body was adopted and reproduced first by potters in Iran and Iraq as

71 J. Engemann, "Early Islamic Glazed Pottery of the Eighth Century A.D. from the Excavations at Abu Mina," in *Coptic and Nubian Pottery* (n. 64 above), 1:63–76; M. Rodziewicz, "Egyptian Glazed Pottery of the Eighth to Ninth Centuries," *BSAC* 25 (1983): 73–75; G. Scanlon, "Fayyumi Pottery: A Long-Lived Misnomer in Egyptian Islamic Ceramics; Type I," *Bulletin de la Société Archéologique d'Alexandrie* 45 (1993): 295–330.

72 W. Watson, *The Arts of China to AD 900* (New Haven, 1995), 233–38.

the vessels were traded along the Central Asia trade routes.[73] George Scanlon, who has worked extensively on glazed ceramics from Fustat, has argued that a more accurate term for these vessels would be *imitation of imitation-ware*.[74] He asserts that these pieces were not imported from further east, but rather are Egyptian copies of Iraqi imitations of T'ang splashware. Relying upon his study of the Fayyumi fragments at Fustat, Scanlon attributes these pieces to the local pottery districts in Fustat. Mason's study of the Fayyumi ware, which he identifies as *polychrome glaze ware*, supports Scanlon's interpretation.[75] The petrofabrics for the Egyptian ware differ significantly from Iraqi splashware, thereby indicating the local production of this second-generation imitation.[76] The longevity of the open form of Fayyumi ware makes it a diagnostic form for the later occupation of the monastery, especially in the region to the west of the church.

The final category of ceramic evidence visible at the monastery of Apa Shenoute is a wide selection of Islamic glaze wares that are more commonly associated with the medieval periods of the Ayyubids and the Mamluks. These examples include blue, green, brown, and yellow painted sgraffito bowls that are similar to the later medieval pottery styles seen also at the urban sites of Fustat and Alexandria, and the pilgrimage center of Abu Mina (fig. 44).[77] As with the earlier glaze wares, these examples are more in evidence in the areas directly associated with the structures west of the church and are less in evidence in the outlying areas of the site. The area of the survey is replete with broken water pipes made of brown and red Nile silt and other coarse wares that need further study to place them in a typographical chronology. Especially difficult without stratigraphic excavation is to differentiate between the coarse wares of the Byzantine and Islamic periods.

Overall, the pottery is extensive at the monastery of Apa Shenoute and indicates chronological diagnostics that accord with the literary tradition about the occupation of the site. The limited presence of later Islamic forms on the surface would also substantiate the conclusion that the occupation of the site was more sizeable in the Byzantine and early Islamic periods, while the community decreased in the medieval period. A kiln excavated by the SCA in the area north of the SCA spoil heaps testifies to the local production of wares. With stratigraphic excavations, we will be able to develop a relative chronology of pottery that will nicely complement the pottery assemblages already published for other monastic complexes.

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73 For examples of pottery influenced by the Silk Road trade, see *Terres secrètes de Samarcand: Céramiques du VIII^e au XIII^e siècle* (Paris, 1992), no. 117.

74 Scanlon, "Fayyumi Pottery," 295–96.

75 Mason and Keall, "Islamic Pottery," 173.

76 Ibid., 172. Fayyumi ware has been found at other sites mentioned above: al-Ashmunein, Naqlun, and Wadi Natrun. See Spencer and Bailey, *Ashmunein* (n. 64 above), 5:113–14; Brooks Hedstrom, "Ceramic Corpus at John the Little's Monastery" (n. 69 above).

77 For examples see A. Contadini, *Fatimid Art at the Victoria and Albert Museum* (London, 1998), 85–86. See also A. Lane, "The Early Sgraffito Ware of the Near East," *Oriental Ceramic Society* 15 (1937–38): 33–54; D. Papanikola-Bakirtzi, ed., *Byzantine Glazed Ceramics: The Art of Sgraffito* (Athens, 1999); Engemann, "Pottery at Abu Mina" (n. 71 above), figs. 10–11; G. T. Scanlon, "Mamluk Pottery: More Evidence from Fustat," *Muqarnas* 2 (1984): 115–26; idem, "Fustat Fatimid Sgraffiato: Less than Lustre," in *L'Egypte fatimide: Son art et son histoire* (Paris, 1999), 265–83.

III. Finds of Coins and Related Objects from the Monastery of Apa Shenute at Suhag

HANS-CHRISTOPH NOESKE

The so-called "White Monastery" (Dayr al-Abyad), or "Monastery of Apa Shenute," near Atripe (ancient Athribis) and Suhag, is one of the most important monasteries of Christian Egypt.[78] It owes its importance not only to the famous founder, the abbot Shenute, but also to its exceptional architecture and its size.[79]

Equally significant for the religious and ecclesiastical history of Egypt are the extraordinary social and economic functions, which show that the monastery of Apa Shenute became a focal point as a national Egyptian center, especially during periods of persecution of the Coptic church in the fourth decade of the seventh century AD. For this reason any archaeological excavations conducted by the Egyptian Antiquities Organization are to be welcomed, in order to obtain more information and better knowledge of the site.[80] Regrettably, however, the scientific publication of the results of the excavations and of the finds has been delayed. Therefore, the third part of this article is intended to draw attention to some long-known, selected finds from older excavations, which may help us to understand the monastery of Apa Shenute in its special function as an economic center.

III.1. *Pottery mold for the production of coin imitations*

During the excavations of the Egyptian Antiquities Organization in 1992, a pottery disk (figs. 45–46) was found in the southeastern corner of the large residence hall (see I.1.2). This disk served as a mold for casting dodekanummi in the name of the emperor Phocas (602–610).[81] The disk, of light, brown clay, is not flat, but dish-shaped with convex and concave sides. The diameter is 8 cm, the thickness 0.66 cm. A channel about 3 cm long penetrates the disk on the concave side from the edge to the middle. On each side of the disk are 21 negative impressions, which show either the obverse or the reverse of Phocas dodekanummi from the mint of Alexandria, exclusively of the type *DOC* 106 = *MIB* 90.[82] On the obverse is a crudely designed profile bust of the emperor facing right, diademed, wearing cuirass and paludamentum, with fragments of a blundered and unintelligible inscription (e.g., DN IVS–P PAV or similar). The reverse shows the numeral IB (= 12) in Greek letters; between the digits is a cross; in the exergue AΛЄƵ(ANΔPIA), the abbreviation of the mint of Alexandria (cf. fig. 47B–D).

Pottery molds for imitating coins had long been in use in Egypt.[83] The earliest group is to be dated to

78 S. Timm, *Das christlich-koptische Ägypten in arabischer Zeit*, part 2, *(D–F)*, Beihefte zum Tübinger Atlas des Vorderen Orients, Reihe B (Geisteswissenschaften) 41.2 (Wiesbaden, 1984), 601–34 s.v. ad-Der al-Abyad (Kloster des Apa Šenute) with literature; P. Grossmann, "New Observations in the Church and Sanctuary of Dayr Anba Šinuda—the so-called White Monastery—at Suhag," *ASAE* 70 (1984–85): 69–73; Grossmann and Mohamed, "Monastic Buildings" (n. 13 above); Grossmann et al., "Excavation" (unnum. n. above).

79 Grossmann, *Christliche Architektur* (n. 8 above), 528–29.

80 These activities began in 1985 under the authority of the Egyptian Antiquities Organization, and were continued until 2002 by the Egyptian Supreme Council of Antiquities (SCA).

81 I owe the knowledge of this find to P. Grossmann. Thanks to his efforts in consulting the workmen who were present during the excavations the exact findspot of the mold was ascertained, and photos taken. For the description and position of the findspot cf. Grossmann et al., "Excavation," figs. A and C, pp. 375ff.

82 *DOC* 2.1:192–95, nos. 106.1–52 and plate V; C. Morrisson, *Catalogue des monnaies byzantines de la Bibliothèque Nationale*, vol. 1, *D'Anastase Ier à Justinien II (491–711)* (Paris, 1970), 236–37, nos. 8/Al/AE/01–05; pl. XXXVIII (hereafter *BN*); W. Hahn, *Moneta Imperii Byzantini*, 3 vols. (Vienna, 1973–81), 2:133, no. 90; Taf. 35 (hereafter *MIB*); cf. J. Sabatier, *Déscription générale des monnaies byzantines frappées sous les empereurs d'Orient depuis Arcadius jusqu'à la prise de Constantinople par Mahomet* (Paris, 1862), 2:257, no. 43; W. Wroth, *Catalogue of the Imperial Byzantine Coins in the British Museum* (London, 1908), 177–78, nos. 123–34; pl. XXII 7–9 (hereafter *BMC*).

83 M. Jungfleisch and J. Schwartz, *Les moules de monnaies impériales romaines*, Suppl. aux ASAE 19 (Cairo, 1952); J. Schwartz, "Supplément à la bibliographie des moules de monnaies impériales romaines," *Schweizer Münzblätter* 13 (1963): 12–14; A. M. El-Khachab, "Les monnaies coulées fausses et les moules monétaires à bijoux du Cabinet des Médailles au Musée du Caire," *ASAE* 51 (1951): 51; J. G. Milne, "The Currency of Egypt in the Fifth Century," *NC* (1926): 43ff.; J. G. Milne, "Coin Moulds for Egyptian Feudal Currency," *Ancient Egypt* (1931): 73ff.; B. Lichocka, "Les moules égyptiens à monnaies tardives du British Museum," in *Archaeological Research in Roman Egypt: The Proceedings of the Seventeenth Classical Colloquium of the Department of Greek and Roman Antiquities, British Museum, held on 1–4 December, 1993*, Journal of Roman Archaeology Supplementary Series 19 (Ann Arbor, 1996), 197–206; H.-C. Noeske, "Bemerkungen zum Münzumlauf vom 5. bis zum 7. Jahrhundert n. Chr. in Ägypten und Syrien," *XII. Internationaler*

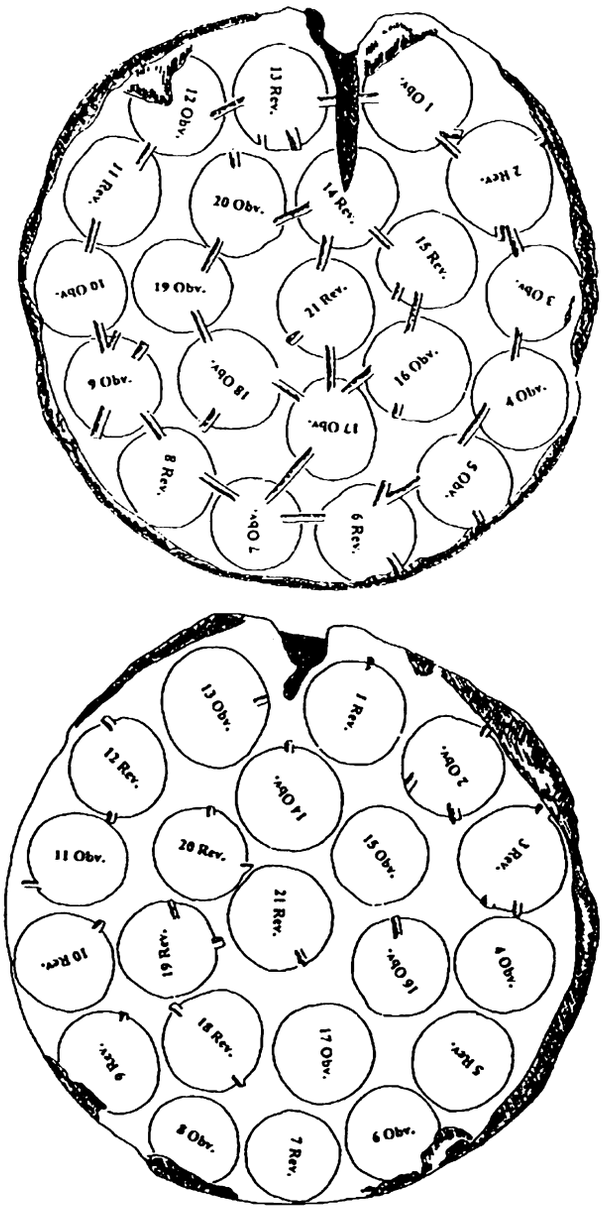

FIG. 45 Coin mold from the monastery of Apa Shenute, concave (top) and convex (bottom) sides.

FIG. 46 Coin mold from the monastery of Apa Shenute, concave (top) and convex (bottom) sides.

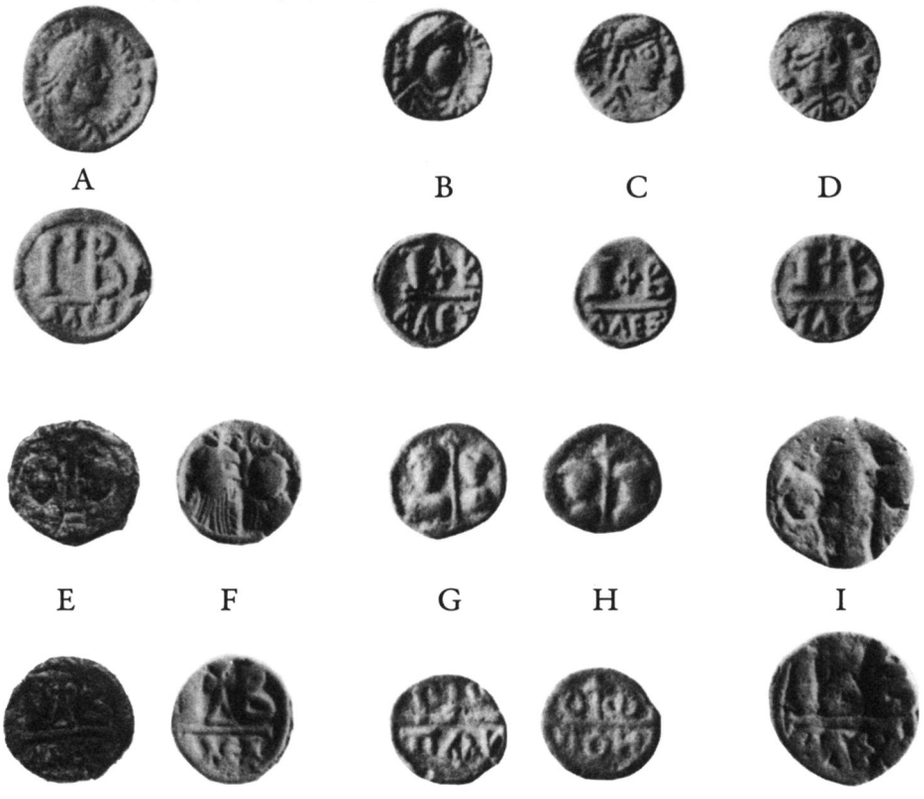

FIG. 47
Dodekanummia.
A: Justinian I;
B–D: Phocas;
E–F, K: Heraclius;
G–I: Benjamin I (?).

the beginning of the fourth century AD, when after the replacement of the Alexandrian provincial currency of the early Roman Empire by the late Roman imperial currency after the reforms of Diocletian, a shortage of small change in Egypt was compensated for by local imitations. In this early group the molds showed only a single impression for one coin, a follis.[84]

The next group of molds, now with several coin impressions per disk, is to be dated to the period from the end of the fourth century until the reign of Justinian I.[85] During this time an enormous amount of small change was produced unofficially in such molds in Egypt. Once more a shortage of change was the reason for these imitations. From AD 382, after the foundation of the dioecese of Egypt within the large Prefecture of Oriens, only the four officinae of the mint of Alexandria remained to supply Egypt, instead of formerly 14 from the mints at Antioch and Alexandria; and even these four officinae worked only until 425, when the mint of Alexandria was closed until the reign of Justin I (518–527), with a only short resumption between 457 and 474. Continuous and regular work was not resumed at the mint of Alexandria

Numismatischer Kongress Berlin 1997, vol. 2, *Proceedings* (Berlin, 2000), 812–20; idem, "Spätkaiserzeitliche Münzgussformen aus dem Fayum (Aus dem Nachlass F. Zucker)," in *Erinnerungen an einen Rektor: Friedrich Zucker (1881–1973)*, ed. H. G. Walther, Quellen und Beiträge zur Geschichte der Universität Jena 4 (Rudolstadt and Jena, 2001), 63–88; F. Barakat, "Gussmünzen im römischen Ägypten," in *L'exception égyptienne? Production et échanges monétaires en Égypte hellénistique et romaine; Actes du Colloque d'Alexandrie, 13–15 avril 2002*, ed. F. Duyrat and O. Picard, Études Alexandrines 10 (Cairo, 2005), 213–23.

84 G. Dattari, "Intorno alle forme da fondere monete imperiali romane," *RIN* 26 (1913): 350–75; 447–510; El-Khachab, "Monnaies coulées fausses"; Noeske, "Spätkaiserzeitliche Münzgussformen"; F. Barakat and O. Picard, "Moules monétaires du Bas Empire d'Hermopolis Magna au Musée gréco-romain," *Alexandrina* 2 (2002): 275–313; Barakat, "Gussmünzen."

85 Noeske, "Bemerkungen zum Münzumlauf," with literature; idem, "Zu den Gussimitationen axumitischer Bronzemünzen in Ägypten und Palästina," in *Θεμέλια: Spätantike und koptologische Studien Peter Grossmann zum 65. Geburtstag*, ed. M. Krause and S. Schaten, Sprachen und Kulturen des christlichen Orients 3 (Wiesbaden, 1998), 249–65.

probably until 538/39 with the reformed Byzantine coinage according to Justinian's edict XIII *De urbe Alexandrinorum et Aegyptiacis provinciis*.

The pottery disk from the monastery of Apa Shenute is the latest mold known to date; its coin impressions place it no earlier than the reign of Phocas (AD 602–610), that is, to the first years of the seventh century.

Coin molds could be produced by a fairly simple method.[86] Disks of the diameter needed were shaped from fresh, wet clay. Then the obverses and reverses of the coins to be imitated were pressed into the concave side of the disk, thus forming negative impressions. These were then connected by small channels engraved in the clay with narrow wooden sticks or similar instruments.

A second disk provided the impressions of the other sides of the coins. The convex side of the mold from the monastery of Apa Shenute clearly demonstrates this. Its counterpart was the concave side of yet another disk. By arranging several disks together with impressions on both sides, which were held together by clay that was still wet, or by an additional coat of clay, and by cutting a channel for pouring in hot, liquid metal, it was possible to produce a large number of imitation coins at one time. The hot metal fired the clay of the disks with the coin molds, and after cooling the stack of disks was destroyed and the coins were removed. The burrs at their edges then had to be cleaned, and the "shoots" resulting from the connecting channels removed. Thus each stack—normally consisting of some twelve to twenty disks, of which the first and the last had impressions of coins on only one side—could be used only once. On both sides of the mold from the monastery of Apa Shenute the coin impressions are arranged in two concentric circles. The outer circles each contain thirteen impressions, the inner seven. There is one additional impression in the middle of both sides. In fig. 45 the impressions are numbered clockwise, beginning with the outer circle. Additionally it is noted whether the impression is of an obverse (Obv.) or a reverse (Rev.) of the original coin. The orientation is given by the position of the letters.

Poured into a large channel at the top of the stack of molds, the hot metal filled the negative impressions, flowing through the smaller connecting channels. The outer circle of impressions of the concave side of the disk was directly connected with the main channel by the adjacent impressions 1 Obv. and 13 Rev., the inner circle by 14 Rev. On the bottom of the disk the outer and the inner circle of impressions were connected additionally by a small channel between 17 Obv. and 7 Obv., as was the central impression 21 Rev. with 14 Rev. and 17 Obv. During casting air could escape through small channels which led to the edge of the mold, visible next to impressions 2 Rev., 5 Obv., 6 Rev., and probably 12 Obv.

Some of the coin impressions on both sides of the disk reveal the starting points of additional small channels, which have no connections to the adjacent impressions. On the concave side this can be seen in 1 Obv., 2 Rev., 6 Rev., 9 Obv., 13 Rev., 15 Rev., 16 Obv., 20 Obv., and 21 Rev.; on the convex side this is true of all impressions except 4 Obv., 5 Rev., 7 Rev., 15 Obv., and 17 Obv. The explanation for this is that the coins used for the impressions in the disk were not struck coins, but coins which had themselves been cast; they can be recognized not only by their weak and flat representation, but also by the characteristic signs of their production. In the photo of the disk (fig. 46) the characteristic offset edges of the coins which were used to produce the impressions are clearly visible. These edges are typical of cast coins, and are not found on struck coins. They are clear proof of the use of cast coins in preparing the mold. Thus we must assume that the production of cast imitations from models from the reign of Phocas must have been quite prolific in the monastery of Apa Shenute. The cast copies are thinner than struck dodekanummi, and smaller. They generally have diameters of between 14 and 11 mm, but can be as large as 16 mm, or as small as 9 mm. Their thickness is between 2 and 0.5 mm, but mostly 1.5 to 1.0 mm.

Like the copies from the earlier periods of imitation, so too the cast copies of the early seventh century AD have long been known from different sites in Egypt. Cast copies from the reign of Phocas have been found in several unpublished complexes in Alexandria. Many are known from Abu Mina, further to the west,[87] and

86 Noeske, "Bemerkungen zum Münzumlauf," 812f.; Barakat, "Gussmünzen"; P. Andrieux et al., "Études expérimentales et métallurgiques du moulage de monnaies en bronze de la fin de l'Empire romain," in Duyrat and Picard, *L'exception égyptienne?* 225–52.

87 H.-C. Noeske, *Münzfunde aus Ägypten*, vol. 1, *Die Münzfunde des ägyptischen Pilgerzentrums Abu Mina und die Vergleichsfunde aus den Dioecesen Aegyptus und Oriens vom 4.–8. Jh. n. Chr.*, Studien zu Fundmünzen der Antike 12 (Mainz, 2000), 2:120 no. 2013; 121 no. 2031; 137 no. 2611; 191 nos. 642, 645, 648, and ca. 25 further pieces, still unpublished.

they have been found in Kellia,[88] as well as in Shedia near Damanhur.[89] Probably they are among the coin finds of Oxyrhynchus,[90] and they are also present in two hoards from Egypt without a definite provenance.[91]

In the Delta the officially struck dodekanummi of the early Byzantine period are considerably more common than in Upper Egypt. Although these pieces were mass produced, they did not reach the Nile valley south of Thebes/Armant, as is shown clearly by the coin finds from the excavations in Elephantine and in Aswan. The reasons for the unequal distribution are not yet clear. The find of a mold for imitating precisely these issues so far south as the region of Suhag/Athribis/Panopolis is thus all the more interesting.

Dating the copies and their models is easy, despite the blundered obverse legend, which never includes the name of Phocas. It can be deduced from the sequence of the official Alexandrian issues of the predecessors of Phocas and from the coin types of his successor Heraclius, as well as from the series from the years of the Persian occupation of Egypt.

No earlier than the reign of Justin I, after a lengthy but temporary closure, the mint of Alexandria began striking reformed Byzantine coinage. The main denomination issued was the follis of twelve nummi = dodekanummi, together with some fractions of 6- and 3-nummus pieces.[92] By introducing this denomination system, Egypt was separated from the general Byzantine system of folles of 40-, 20-, 10-, and 5-nummus pieces valid everywhere else in the Byzantine east. The result was a special, restricted circulation area in Egypt, as had been the case previously under Roman rule from Augustus until the reforms of Diocletian.[93]

With the exception of small variants, all dodekanummi were similar (cf. fig. 47 A–D). On the obverse was the profile bust of the issuing emperor facing right, and the imperial name in the legend; on the reverse, the Greek letters I B, with a cross between them. At the bottom, in the exergue, the letters AΛEZ indicate the abbreviated name of the only official mint in Egypt, Alexandria. This profile type was not abandoned in favor of a facing bust in 528/29, as occurred in all other mints in the Byzantine east, nor were the coins dated according to the regnal year of the reigning emperor, as became the rule outside Egypt from 538/39, at least for the larger denominations. The latest Alexandrian dodekanummus of the profile type with a legible obverse legend were those of Maurice Tiberius.[94] The coins of Heraclius, with their double facing busts of Heraclius and Heraclius Constantinus on the obverse, belong to a new type of "dynastic" representations.[95] Even the shape of the crosses on the reverses now changed.

Thus the small, poorly struck "Phocas" pieces must be placed between the dodekanummus for Maurice and the early issues of Heraclius. They are correctly ascribed to the reign of Phocas on the grounds that it is unlikely that they were struck officially at the mint of Alexandria, as were their predecessors during the reign of Maurice Tiberius.[96]

88 Noeske, *Münzfunde aus Ägypten*, 233 nos. 161, 162.

89 Excavations of Göttingen University 2006, Areal 16 no. 273 (unpublished).

90 J. G. Milne, "The Coins from Oxyrhynchus," *JEA* 8 (1922): 158–63; Noeske, *Münzfunde aus Ägypten*, 352 nos. 2089–2102.

91 Hoard from Egypt from 1975: D. M. Metcalf, *Coin Hoards* (London, 1975), 1:60 no. 236; Noeske, *Münzfunde aus Ägypten*, 418 nos. 32–33, 105–22; hoard from Egypt from 1978: W. Hahn, "A Sixth-Century Hoard of Byzantine Small Change from Egypt, and Its Contribution to the Classification of African Minimi," *NC* (1980): 64–70; Noeske, *Münzfunde aus Ägypten*, 423 nos. 254–58.

92 J. R. Philipps, "The Byzantine Bronze Coins of Alexandria in the Seventh Century," *NC* (1962): 225–41.

93 Noeske, *Münzfunde aus Ägypten*, 1:128–29, 157–60.

94 *DOC* 1:352 nos. 213. 1–11 = *MIB* 107.

95 *DOC* 2.1:189 and 190 (AD 613–18); 193 (AD 628/9); 194 (AD 629/30); 195 (AD 629–31).

96 Cf. W. Wroth, *BMC* 177 n. 2:

> These coins are so barbarous that it is difficult to believe that they were struck at the Imperial mint. Yet they appear to belong to the time of Phocas, because (1) the Alexandrian coins of his predecessors (Justinian I, Justin II, Tiberius Constantine, and Mauricius Tiberius) are of different fabric, size, and lettering, and (2) the Alexandrian coins of his successor Heraclius present new obv. types. None of the specimens in the British Museum show the inscription DN FOCAS recorded by Sabatier p. 257 No. 43. On one or two specimens the legend rather suggests the name Justinus (II), but the coins cannot be with certainty assigned to his reign.

P. Grierson, *DOC* 2.1:150:

> No dodekanummia are known bearing the name of Phocas, though there is one coin (No. 105) with bearded, facing bust which may be his. Wroth attributed to him a large number of ill-struck pieces whose blundered inscriptions sometimes recall the names of Justinian and his successors down to Maurice, but never Phocas. J. G. Milne ["Report on the Coins Found at Antinoe in 1914," *NC*, ser. 6, 7 (1947): 108–14] showed from the evidence of hoards that these common pieces belong

The shortage of small change, which could not be compensated for by these irregular pieces alone, finally led, as the mold from the monastery of Apa Shenute shows, to a decentralized unofficial production of cast copies during the reign of Phocas, between 602 and 610. Possibly they originate only from the very end of the period, from ca. 608–10, during the years of the struggle between Phocas and his successor, Heraclius. Or, they may even date from the first three years of Heraclius's reign, for his earliest type with the twin bust of himself and his son Heraclius Constantinus is not to be dated earlier than the latter's coronation as coregent in 613.[97]

Frequently these small and underweight dodekanummi from the reign of Phocas, struck or cast, were later overstruck as 6-nummus pieces under Heraclius.[98] In this way as well as in their original emission they circulated as late as the end of the seventh century.

III.2. *Gold hoards*

Two large finds of gold coins were made in 1987 in the excavations of the Egyptian Antiquities Service at the monastery of Apa Shenute. They even came to the attention of the national and international press with several mistakes in detail, but, regrettably, they have not yet been properly published, more than twenty years later.[99]

The earliest reference to the two hoards was made by C. Morrisson in 1990:[100]

> Deux trésors de monnaies d'or byzantines en Egypte. M. Jean Leclant, professeur au Collège de France, secrétaire perpétuel de l'Académie des Inscriptions et Belles-Lettres, nous communique des extraits de la presse égyptienne concernant deux trésors de monnaies d'or byzantines mis au jour en 1987 lors des fouilles archéologiques. Dans les ruines du "Monastère blanc" (Dayr al-Abyad) du pape Chenouda, situés près du village de Suhag à 480 km au sud du Caire, un ensemble de 820 monnaies d'or des VI et VII^{e} siècles, contenu dans des vases de terre cuite, mis au jour en deux groupes (dont l'un le 19 décembre 1987). Le premier était constitué de 220 pièces de "grand module" et 180 pièces "plus petites", le second de 301 et 119 exemplares. Les monnaies à l'effigie des empereurs Justinien, Phocas et Héraclius et à la marque d'atelier CON sont attribuées à Constantinople selon le président de l'office égyptien des Antiquités, M. Ahmed Kadry [il se pourrait que les pièces "plus petites" soient des semisses

early in the reign of Heraclius, at the latest, and Bellinger ["Byzantine Notes, 9: Dodekanummia of Alexandria in the Seventh Century," *Museum Notes* 12 (1966): 107–8] would prefer to ascribe most of them to the years 608–610, when Alexandria was occupied by the troops of the future emperor Heraclius and mint officials would escape the embarrassment of endorsing one claimant or the other by issuing small change in the names of former emperors. This would explain why the coins do not bear Phocas' name, but it is difficult to believe that the six years in which he was recognized at Alexandria can be represented by a single coin with a facing bust, if indeed this is his at all. I have therefore preferred to follow Wroth in ascribing the coins with blundered inscriptions to the whole period 602–608, though I would also agree with Milne that many may represent local irregular issues, not products of the mint of Alexandria. Some may belong to the Persian and Muslim periods.

W. Hahn, *MIB*, 82:

> Da es keine Alexandriner Münzen des Phocas gibt, hat schon W. Wroth die zahlreichen barbarisierten Zwölfer mit verballhornten Legenden und wilden Portraits in die Regierungszeit des Phocas verwiesen. Dieser Zeitansatz wird durch die Fundevidenz bestätigt. A. R. Bellinger zieht es vor, diese Stücke in die Heraclius-Revolte einzuengen (608/610). Alexandria hat jedoch in den betreffenden Jahren im Namen der beiden Heraclii geprägt, allerdings keine AE für Ägypten. Die barbarisierten Münzen sind m.E.—ganz abgesehen von den Legenden—auch wegen ihres minderen Gewichtes nicht als offizielle Prägungen anzusehen. Es hat vielmehr den Anschein, als wäre das Münzamt in Alexandria unter Phocas überhaupt geschlossen gewesen. Als Folgeerscheinung entstand allenthalben in Ägypten eine mehr oder weniger private Notgeldprägung, ganz ähnlich wie dann 40 Jahre später nach der Eroberung Ägyptens durch die Araber. Man ahmte die früheren Zwölfer also nach. Diese barbarisierten Zwölfer sind sicherlich auch noch in der Zeit der Heraclius-Revolte geprägt worden, da erst unter Heraclius die reguläre Alexandriner Prägung wieder aufgenommen wurde.

All quotes from works cited at n. 82.

97 *MIB* 3:83.

98 S. Abd el-Raouf Abbas, "Some Overstruck Coins from the Time of Heraclius," in Duyrat and Picard, *L'exception égyptienne?* 339–57.

99 For late Roman gold hoards cf. H.-C. Noeske, "Bemerkungen zur Struktur von Goldschatzfunden der Spätantike in den Dioecesen Aegyptus und Oriens," in *Coin Finds and Coin Use in the Roman World: The Thirteenth Oxford Symposium on Coinage and Monetary History 25.–27.3.1993*, ed. C. E. King and D. G. Wigg, Studien zu Fundmünzen der Antike 10 (Berlin, 1996), 289–307.

100 *International Numismatic Newsletter* 17 (April 1990): 15–16.

or des tremisses mais les informations disponibles ne permettent pas de le préciser]. Il reste à souhaiter une publication prochaine de ces trésors, rares étant les informations disponibles sur la circulation de la monnaie d'or byzantine en Egypte.

In 2003 Gawdat Gabra published some details of one of these finds, which has been kept in the Coptic Museum in Cairo since 1988.[101] Four hundred gold coins and the broken container entered the Coptic Museum. These coins had been registered in two groups, probably on the basis of the size and the weight of the coins. The first group (Reg. No. 12566) contains 220 pieces, all of them solidi of Phocas and Heraclius. According to the description and photos,[102] the solidi of Phocas are from the mint of Constantinople and are of the type *MIB* 2:7/9 (December 603–9) = *DOC* 10i (607–10); the solidi of Heraclius from the same mint are of the type *MIB* 3:8–20 (613–ca. 625) = *DOC* 8/13 (613–ca. 625).[103] The exact number of both types is not given. The second group (Reg. No. 12567) contains 180 pieces, semisses of Constans II of the type *MIB* III 50 (642–68) = *DOC* 44 (641–68). According to G. Gabra the first group was found on 17 December 1987, the second fourteen days later, on 31 December 1987. Thus it is not clear whether the "hoard" is not in fact two different parcels of selected coins which were concealed in the same place at one or, more probably, on two different occasions.

The (first) concealment of the solidi may be connected with the threat posed to the region, or the monastery, by the Sassanians under Chosroes II;[104] that of the considerably more recent semisses of Constans II may be dated sometime after the Islamic conquest of Egypt.[105] The explanation why the coins (of two different hoards?) remained in their hiding place and were not recovered later is a further problem, which has to be solved separately, and is closely related to the history of the monastic buildings concerned.[106]

101 G. Gabra, "Die Münzschätze aus dem Shenute-Kloster bei Sohag," in *Ägypten-Münster: Kulturwissenschaftliche Studien zu Ägypten, dem Vorderen Orient und verwandten Gebieten; Donum natalicium viro doctissimo Erharto Graefe sexagenario ab amicis collegis discipulis ex aedibus Schlaunstrasse 2/Rosentrasse 9 oblatum*, ed. A. I. Blöbaum, J. Kahl, and S. D. Schweitzer (Wiesbaden, 2003), 125–28.

102 Ibid., 126 and plates 5 and 6.

103 *MIB* 3:211f. and Prägetabelle I.

104 For the conquest and occupation of Egypt by the Sassanians cf. R. Altheim-Stiehl, "Wurde Alexandria im Juni 619 n. Chr. durch die Perser erobert? Bemerkungen zur zeitlichen Bestimmung der sasanidischen Besetzung Ägyptens unter Chosrau II. Parvez," *Tyche* 6 (1991): 3–16; S. G. Richter, "Beobachtungen zur dritten persischen Eroberung und Besetzung Ägyptens in den Jahren 618/19 bis 629 n. Chr.," in Blöbaum, Kahl, and Schweitzer, *Ägypten-Münster*, 221–32, both with literature. Coin finds have not been used until now for a better understanding of the Persian period. Beside the hoard of the monastery of Apa Shenute there is the hoard from Saqqara 1912 II (Noeske, *Münzfunde aus Ägypten* [n. 87 above], 251) with 4 solidi of Phocas and Heraclius, probably the hoard from Minshat Abu Omar in the eastern Delta (ibid., 243f.), with 20 solidi of Justinian I until Tiberius II Constantine, and probably the large hoard from Alexandria-Chatby (ibid., 210ff.) with 191 gold coins and one silver coin from Constantius II until Heraclius. Four bronze hoards are known which may be connected with the Persian period. The unpublished hoard containing more than 6,600 pieces, discovered in 1952 in Alexandria near the building of the Agricultural Faculty of the University (now in the Greek-Roman Museum of Alexandria); the hoard from Antinoe, found in 1914 with 110 coins (ibid., 359f.); the hoard from Egypt, found in 1975 with 125 coins (ibid., 418); and finally the hoard from Egypt, found in 1980 with 69 pieces (ibid., 424). Series of single finds with stratified complexes are available from Abu Mina and from Shedia and Jabal al-Tarif (ibid., 383ff.). Only three Sassanian coins proper have been found in Egypt. They have been published by J. Karabacek, *Papyrus Erzherzog Rainer: Führer durch die Ausstellung I. Teil* (Vienna, 1892), 13f. Two of the silver drachms of Chosroes II are from 617, one from the following year, 618, thus being part of the recent pay of Sassanian soldiers. For similar finds from Syria, see Noeske, *Münzfunde aus Ägypten*, 1:92–93.

105 Byzantine gold circulated in Egypt for a long time, even after the Arab conquest. This is true for coins already in circulation before the conquest as well as for those minted later which reached Egypt from the remaining Byzantine territories. Only as a result of the coinage reform of Abd al-Malik and the minting of Arab dinars after 696/97, whose standard was slightly lighter than that of the Byzantine solidi, were the Byzantine gold coins driven out of circulation. As comparative finds we can cite the hoard of 16 solidi from Abu Mina, found in 1906 during the excavations of C. M. Kaufmann (Noeske, *Münzfunde aus Ägypten*, 15f.) and the hoard of 5 solidi from Saqqara in 1912 (ibid., 250f.).

106 The failure to recover the (earlier?) gold hoard may be explained by the destruction of parts of the monastery, and with associated casualties of the Persian conquest; cf. Grossmann, *Christliche Architektur* (n. 8 above), 533ff. Concealed parcels of coin, mostly gold, are not unusual in monasteries. In most cases these are small groups of no more than 20 solidi; cf. Noeske, *Münzfunde aus Ägypten*, 1:87ff. A systematic collection of references concerning money in connection with churches, monasteries and hermitages remains to be assembled; cf. E. Patlagean, *Pauvreté économique et pauvreté sociale à Byzance 4e–7e siècles* (Paris, 1977), 341ff. From the monastery of Apa Shenute we know of a receipt from a monk concerning a *holokottinos* (= 1 solidus) from the year 619 or 634 (Timm, *Christlich-koptische Ägypten* [n. 78 above], 609), and from 742 or 743 the donation of 400 dinars and one horse by the then financial

No details are known of the 420 (?) gold coins which went to the Islamic Museum in Cairo, apart from the total sum and the notice by Leclant and Morrisson concerning apparently earlier pieces—possibly of Justinian I—so that concealment of the hoard in connection with the Persian threat to Upper Egypt is possible, or even plausible, but cannot yet be proved. The reason for the division and registration of the coins from the hoard in two groups of 301 and 119 coins in the Islamic Museum likewise remains enigmatic.

Thanks to the recent queries of Peter Grossmann to the inspectors of the Egyptian Antiquities Organization at the time and the workers from the site, the exact find-spots of both hoards are now clear. One is at the outer southeastern corner of the large residence hall, the second near the southernmost column of the western part of the peristyle of the peristyle hall (fig. 8). In both places the coins were hidden in pottery vessels beneath the floor. But which hoard was found in which place still is not clear.[107]

It is surprising that such a spectacular, not to say historically important, discovery as these two large gold hoards with hundreds of coins in each, found at such an exceptional site as the monastery of Apa Shenute, has not prompted more scholarly research. The hoards have, nevertheless, overshadowed single coin finds discovered there during the excavations. Single finds, lost unintentionally and not selected and hidden like hoards, are valuable archaeological sources, both for the site itself and the region.[108]

III.3. *Coins of the Patriarch Benjamin I?*

Finally, a coin type should be mentioned here which has long been known, but whose chronology and historical interpretation is still disputed. It is the type *BMC* 315–22 (= Tolstoi 311[109] = Sabatier 88 = BN/Al/AE/83 = *MIB* 3:X 48), a dodekanummus piece, certainly not from the official mint of Alexandria. These coins (fig. 47G–I) bear on the obverse two facing busts, with a long cross between them. On the reverse they show the apocalyptical letters A and ω, again with a cross in between. In the exergue at the bottom of the reverse, instead of the usual four letters ΑΛΕϚ, representing the mint of Alexandria, they have only three letters, which have usually been read as ΠΑΝ or ΠΟΝ, and interpreted as a misunderstood and degraded form of the correct ΑΛΕϚ.[110]

However, J. W. Kubitschek is probably correct in reading ΠΑΝ. The diagonal bar of the A is often given as an angle, the whole letter therefore looking like a lozenge similar to the letter O, but rectangular with corners. He suggests that ΠΑΝ is the abbreviation of the city of Panopolis, that is, Akhmim, in Upper Egypt, on the east bank of the Nile opposite the monastery of Apa Shenute.[111]

The possibility that ΠΑΝ is merely a blundered inscription can be excluded, since the letters are always very clear, and the general appearance of the coins is neat and careful. This is in striking and significant contrast

director of Egypt, al-Qasim b. Ubed Allah, and the donation of 300 dinars to the monastery by Rayan, son of the former governor of Egypt, Abd al-Aziz b. Marwan, in the same year (ibid., 612). The two sums are quite comparable to the hoards found in 1987. The hoard from the monastery of Nikertai near Apamea in Syria, containing 534 gold coins, ends with coins of Constantine IV, that is, before the monetary reforms of Abd al-Malik; cf. C. Morrisson, "Le trésor byzantin de Nikertai," *RBN* 118 (1972): 29–91.

107 Grossmann et al., "Excavation," 371ff. figs. A–C.

108 H.-C. Noeske, "Bemerkungen zur Problematik der Siedlungsfunde," in *Ergebnisse des FMRD-Colloquiums vom 8.–13. Februar 1976 in Frankfurt am Main und Bad Homburg v.d.H.*, ed. M. R. Alföldi, Studien zu Fundmünzen der Antike 1 (Berlin, 1979), 157–65. According to the information of Mohamed Abdal-Rasul 1,185 copper coins were collected as single finds during the excavations. This is an unusually large number, and demonstrates the great importance of the site. So it is to be hoped that the authorities will give their permission for the identification and analysis of that collection.

109 J. Tolstoi, *Monnaies Byzantines* (St. Petersburg, 1912–1914, repr. Amsterdam, 1968), 688.

110 Sabatier, "Description générale," 284: "J'ai cherché vainement à deviner à quel nom d'hôtel monétaire pouvaient se rapporter les initales ΠΟΝ, que j'ai trouvées sur huit ou dix exemplaires à peu près semblables à celui dont je donne la description. D'après la forme des caractères, ainsi que par le style et la fabrique de cette monnaie, elle me paraît sortir d'un atelier d'Orient, et j'aurais penché même pour une ville d'Égypte, si le flan de ces pièces eût en l'épaisseur de celles d'Alexandrie; mais elles sont généralement minces." Wroth, *Catalogue*, 228f. note 2: "may, perhaps, be a degraded form of ΑΛΕΞ"; Morrisson, *Catalogue*, 297: "il s'agit en fait probablement de monnaies d'imitation (ΠΟΝ et ses variantes seraient une déformation de la marque de l'atelier ΑΛΕΞ) frappées après la conquête arabe" (all three quotes n. 82 above); *MIB* 3:141f.: "obwohl die anstelle der Münzstättensigle stehenden Lettern offenbar zumeist bloß auf das ΑΛΕΞ der Originale zurückgehen, d.h. dieses mehr oder weniger entstellen, ist in einigen Fällen eine Ortsangabe nicht auszuschließen."

111 J. W. Kubitschek, "Beiträge zur frühbyzantinischen Numismatik," *NZ* 29 (1897): 194f.; Noeske, *Münzfunde aus Ägypten* (n. 87 above), 1:173f.

to the irregular dodekanummi from the time of Phocas, and to the later imitations of dodekanummi of Constans II issued soon after the Arab conquest of Egypt.[112] Technically and stylistically the ΠAN-dodekanummus must be distinguished from both these series.

Apart from this, the general design of both sides of these coins reveals neither ignorance nor clumsiness, but rather represents a very conscious and purposeful change of the type imitated. Retaining the structure and the characteristic features of the official Alexandrian dodekanummus—a cross between the letters IB as mark of value—the reverse was changed by introducing the apocalyptic letters. However, the cross on the small triangle (sometimes a rectangle), which was peculiar to the prototype, dodekanummi of Heraclius *DOC* 194/95 (= Sab. 14 = BN/Al/AE/58 = *MIB* 3:204/205), was left (fig. 47E–F). The obverse of the ΠAN imitations shows the facing isocephalous busts of Heraclius and Heraclius Constantine with the long cross between them. The representation follows the earlier type *DOC* 194, with Heraclius still with a short beard, which must be dated soon after the Byzantine reconquest of Egypt from the Persians, ca. 629/30, since the issue continues the typology of the last series before the Persian invasion. The slightly later *DOC* 195 already shows Heraclius with a long beard. From 632 the obverses of the Alexandrian dodekanummi of Heraclius then change to the so-called "three emperors"-type (fig. 47K). On the basis of this chronological sequence of the obverse and reverse typology, the ΠAN-imitations can be dated no earlier than ca. 629 and no later than ca. 632 because, as a rule, it was the most recent official issues that were imitated.

Even the standard suggests the same chronology, rather than a later date. The models *DOC* 194/95 have an average weight of ca. 5.46 g, as have the dodekanummi of Heraclius before the Persian occupation, of which they are a continuation. Coins of the later "three emperors" series are considerably larger and heavier, with an average weight of ca. 8.16 g.

Given this evidence for the place and time of production of these coins, it seems probable that they were connected with the person or at least the circle of the Coptic patriarch Benjamin I (626–665) who, at just this time, lived in the region of Panopolis, probably in the monastery of Apa Shenute.[113]

The remodeling of the representations of the official imperial coinage in Upper Egypt, the stronghold of the Egyptian resistance, seems to fit Benjamin's formidable personality very well. Thus this coin type may have been created and produced at his direct instigation. This assumption is corroborated by a similar observation by Peter Grossmann concerning the exceptional, conscientious restoration of the great church of the monastery of Apa Shenute after its destruction by the Persians. In the architecture, in the conception of its original meaning, and the correct and careful repair work, the severe character of Benjamin I as instigator is likewise evident.[114] By issuing small change, Benjamin I took care to improve the economic circumstances in Egypt, which were not at their best after the withdrawal of the Persians and the harsh Byzantine restoration. This achievement casts a new light on the activities of the patriarch.

Compared with the official Alexandrian dodekanummus, the ΠAN-imitations were not very numerous. Nevertheless they are found in many places throughout Egypt, from Elephantine in the south to Alexandria in the north. So obviously nobody interfered with their circulation.

112 H. A. Awad, "Seventh Century Arab Imitations of Alexandrian Dodekanummia," *Museum Notes* 18 (1972): 113–17; I do not agree with the views of L. Domaszewicz and M. L. Bates, "Copper Coinage of Egypt in the Seventh Century," in *Fustat Finds: Beads, Medical Instruments, Textiles, and other Artifacts from the Awad Collection*, ed. J. L. Bacharach (Cairo, 2002), 88–111.

113 Noeske, *Ägyptische Münzfunde*, 1:173f. with literature; cf. also Grossmann, *Christliche Architektur*, 534f.; idem, "Der Bericht Benjamins I über den Mönch Isidor und was an historischen Nachrichten in diesem Bericht enthalten ist," in *Divitiae Aegypti: Studien zu Ehren von Martin Krause*, ed. C. Fluck et al. (Wiesbaden, 1995), 128–33.

114 Grossmann, *Christliche Architektur* (n. 8 above), 534: Auffällig ist jedoch, dass beim Wiederaufbau der Kirche—mit einer einzigen Ausnahme—streng auf eine genaue Wiederherstellung der ursprünglichen Gestalt geachtet wurde, was in der Antike sonst höchst selten vorgekommen ist. . . . Es hat damit . . . die feste Absicht bestanden, den einst unter dem Archimandriten Schenute errichteten Bau so treu wie möglich wiederherzustellen. Eine derartige Absicht lässt sich nur von einer starken Persönlichkeit durchsetzen. Unter wessen Leitung das Kloster damals stand, ist nicht bekannt. Wir wissen jedoch, daß etwa in der Zeit von 631 bis 642 n. Chr. der koptische Patriarch Benjamin I. (626–665) sich in diesem Kloster versteckt gehalten hat, und dieser könnte sehr gut die Wiederaufbauarbeiten der Kirche in dem genannten Sinne veranlasst haben, zumal auch die Strenge der Wiederherstellung des ursprünglichen Zustanden dem, was man von seiner Persönlichkeit weiß, durchaus gemäß wäre.

Legally the patriarch, even a heretical Coptic patriarch, was not allowed to issue coins. But this would have been of minor relevance in the context of fierce struggle between the representatives of imperial authority and those of the Egyptian church. This was especially true in Upper Egypt, where there was a shortage of reformed Byzantine small change. In addition to other privileges at this time bishops already controlled weights and measures as part of their area of responsibility.

If our interpretation of the ΠΑΝ-pieces is correct, we have new and significant evidence for the slow process of the separation of Coptic Egypt from the Byzantine empire even in the realm of coinage, and the pictures and messages conveyed by it. This was a process similar to that somewhat later, in which the imitative Byzantine figural typology of the early occupational period was abandoned in favor of a purely epigraphic and Islamic typology with the reforms of Abd al-Malik.[115]

115 P. Grierson, "The Monetary Reforms of Abd al-Malik: Their Metrological Basis and their Financial Repercussions," *Journal of the Economic and Social History of the Orient* 3 (1960): 241–64; G. C. Miles, "The Early Islamic Bronze Coinage of Egypt," in *Centennial Publication of the American Numismatic Society*, ed. H. Ingholt (New York, 1958), 471–502; G. C. Miles, "The Earliest Arab Gold Coinage," *Museum Notes* 13 (1967): 205–29; and C. Foss, *Arab-Byzantine Coins* (Washington, DC, 2008), chap. 7.

The find of a pottery mold to imitate dodekanummi during the reign of Phocas, the discovery of at least two, possibly three large gold coin hoards of Byzantine emperors of the sixth and seventh centuries, and finally the issue of nonofficial coins by the Coptic patriarch Benjamin I in the vicinity of the monastery of Apa Shenute show this monastery to have been an important site in late Roman Egypt, even in economic and monetary terms. It is to be hoped that in future archaeological activities the numismatic finds and their contexts may attract more attention than they have in the past. Poor preservation of coins is today no longer an argument against their scientific study and evaluation. Methods are now available to identify even heavily corroded coins. It is crucial, however, to preserve the contextual integrity of the finds without any modern interventions.

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